Underestimated Risks? Four Studies on the Availability of Resources after Partnership Separation in Switzerland

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3. Preface

Diese Dissertationsschrift ist im Rahmen meiner Anstellung als wissenschaftlicher Mitarbeiter am Arbeitsschwerpunkt Soziale Sicherheit des Departements Soziale Arbeit der Berner Fachhochschule zwischen 2015 und 2018 entstanden. Finanziert wurde die Arbeit wesentlich durch das von Robert Fluder geleitete Forschungsprojekt des Schweizerischen Nationalfonds (SNF) mit dem Titel „Scheidung als soziales Risiko: institutionelle Rahmenbedingungen, Abhängigkeit von Sozialleistungen und geschlechtsspezifische Ungleichheiten“ (Projekt-Nr.: 149594). Hauptbetreuer und Erstgutachter der Dissertation ist Ben Jann, Professor am Institut für Soziologie der Universität Bern. Laura Bernardi, Professorin für Soziologie am Institut für Sozialwissenschaften der Universität Lausanne ist Zweitgutachterin der Dissertation. Sie hat meine Arbeiten im Rahmen ihrer Tätigkeit am Nationalen Forschungsschwerpunkt LIVES betreut und ist Koautorin der vierten Teilstudie. Zwischen 2015 und 2017 habe ich als Mitglied des Doktorandenprogramms von LIVES und des individuellen Forschungsprojektes „Familienkonstellationen und der Lebensverlauf“ (IP208) an verschiedenen Aktivitäten von LIVES teilgenommen, an denen ich Teilstudien dieses Doktorats entwickeln und präsentieren durfte.

Bei der ersten Teilstudie („The Influence of Educational Expansion on Partnership Stability: A Cohort Study of First Partnerships in Switzerland”) handelt es sich um einen geringfügig verändertes Manuskript des gleichnamigen Artikels, der in der Schweizerischen Zeitschrift für Soziologie veröffentlicht wurde. Er erschien im November 2017 (Band 43, Ausgabe 3) als Teil einer Sonderserie zum Thema „Educational Expansion, Family Interactions, and the Open Society“. Die zweite, dritte und vierte Studie der Dissertation sind bis anhin unveröffentlichte Manuskripte. Einen Teil der Analysen der zweiten Teilstudie („The Consequences of Divorce for Mothers and Fathers: Unequal but Converging?“) habe ich am Treffen des RC 28 („research committee on social stratification“) im Sommer 2016 in Bern, sowie an der „European Population Conference“ im Sommer 2016 in Mainz vorgetragen. Die Ergebnisse der dritten Teilstudie („Outpacing the Gender Revolution? Economic Gender Equality, the Deinstitutionalization of Marriage and the Decline of Adult Alimony after Divorce“) habe ich bisher noch nicht öffentlich präsentiert. Die vierte Teilstudie („Clean Breaks at Public Cost? His Earnings and the Effect of Marital Separation on Her Social Assistance Take-up“) ist in Kollaboration mit Gina Potarca und Laura Bernardi im Rahmen der LIVES Winter School “Loss of a partner - a life course perspective” entstanden. Das hier abgedruckte Manuskript ist eine geringfügig angepasste Version des Papers, dass ich im Frühjahr 2018 am Annual Meeting der Population Association of America in Denver vorgestellt habe und das auf der Website der Konferenz online gestellt wurde.

Die Studien beruhen allesamt auf Sekundärdatenauswertungen. In den Analysen verwendete ich einerseits umfragebasierte Datenquellen. Dazu gehören das Schweizerische Haushaltspanel (1999-2016), der Mikrozensus Familie (1994-1995), der Schweizerischer Arbeitsmarktsurvey (1998), die Erhebung Familien und Generationen (2013) und die Schweizerische Arbeitskräfteerhebung/SESAM (2002-2014). Hinzu kommen Datenquellen, die im Rahmen von administrativen Prozessen erstellt wurden: die Individualkonten der AHV, die in der Zentralen Ausgleichsstelle verwaltet werden, die Datenbasis zur „Quantifizierung der Wechselwirkungen zwischen den Systemen der sozialen Sicherheit (IV, ALV, SH)“ des Bundesamtes für Sozialversicherung (SHIVALV), sowie die Statistik der natürlichen Bevölkerungsbewegung (BEVNAT) und die Statistik der Bevölkerung und Haushalte (STATPOP), die beide im Bundesamt für Statistik erhoben werden. Die Verknüpfungen verschiedener Datenquellen wurden allesamt im Bundesamt für Statistik (BFS) durchgeführt. Grosser Dank gebührt deshalb allen Institutionen und Personen, die bei der Erhebung, Aufbereitung und Bereitstellung der Daten für das Projekt „Scheidung als soziales Risiko“ mitgewirkt haben. Besondere Unterstützung erhielt ich von der Sektion Demographie des BFS (u.a. Jacqueline Kucera und Dominik Ullmann) bei den komplexeren Aufbereitungsschritten, die für die dritte Teilstudie notwendig waren. Diese Arbeiten legten die Grundlage für die künftige Ausschöpfung des enormen Erkenntnispotenzials, welches in der Auswertung verknüpfter Administrativdatensätze liegt.

Persönlich dankbar bin ich Robert Fluder, Renate Salzgeber, Sandro Clausen, Claudia Schuwey und Barbara Zimmermann für den Austausch während der Projektzeit und der Berner Fachhochschule, welche mir das Doktorat mit weiteren finanziellen Mitteln ermöglicht hat. Weiter bin ich Ben Jann äusserst dankbar. Während den letzten Jahren erlernte ich von ihm und Rudolf Farys die Werkzeuge der quantitativen empirischen Sozialforschung. Erwähnen will ich auch Gina Potarca, die als Koautorin und im persönlichen Austausch wesentlich zur vierten Teilstudie, aber auch zur zweiten Teilstudie beigetragen hat. Für die Integration in LIVES, die durch Laura Bernardi ermöglicht wurde, bin ich ebenfalls sehr dankbar. Bedanken möchte ich mich auch bei all denjenigen Personen, die die Studienergebnisse an den Sitzungen des Arbeitsschwerpunkts Soziale Sicherheit, am BFH-Doktorandenkolloquium, an den LIVES „Doctoriales“, den Treffen der EFG-Gruppe und an verschiedenen Konferenzen kommentiert haben. Explizit zu erwähnen ist Oliver Hümbelin, der mir stets zu Rat gestanden ist. Schliesslich gebührt mein Dank meiner Partnerin und meiner Familie, durch die ich die notwendige Energie für das Projekt erst habe aufbringen können.

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Dorian Kessler

4. Short summary

In Western countries, separations of partnerships are frequent and threaten the well-being and life chances of those who separate and their children. The negative consequences of union dissolution are only mitigated if individuals who separate have access to the required amounts and types of resources. Focusing on the case of Switzerland, this thesis embraces four empirical studies into the availability of resources to individuals that dissolve their partnerships.

Greater educational attainment has been linked to more frequent partnership separation: more educated individuals more easily cope with separation due to their greater economic resources, couples in which the women has more education and works more enjoy smaller gains from a division of tasks and longer educational trajectories require greater personal flexibility. These views suggest that the expansion of educational attainment can explain the historical rise in breakup rates. Such hypothesis is challenged by research showing that more educated individuals have more satisfied partnerships and that the social context moderates the association between educational attainment and partnership breakup. The *first study* of this thesis draws on partnership histories of more than 23'000 first marriages and non-marital cohabitations that were formed in the last seven decades to examine the association between educational attainment and partnership breakup. The article shows that more educated individuals used to separate more often than less educated individuals, but also that the level of education is no longer statistically significantly related to the risk of separation. Two conclusions emerge from these results: a) the rise in individual educational attainment cannot explain the exceptional increase in the instability of Swiss partnerships and b) the consequences of separation (e.g. poverty) have become more severe because lowly educated individuals with few resources to cope with separation have shown steeper rises in breakup rates than more educated individuals.

If families adhere to a male breadwinner model, mothers and fathers accumulate different kinds of resources. On one hand, this implies that divorces have different consequences for mothers and fathers. While a divorce translates mothers' low career investments into greater economic consequences for them, fathers suffer more emotionally due to deteriorations of the relationships with their children. On the other hand, the consequences of divorce converge between mothers and fathers over time as gender roles become more egalitarian. For the context of Switzerland, the *second study* tests whether a) divorce leads to greater declines in economic well-being for mothers than for fathers, b) whether mothers report smaller declines in emotional well-being than fathers and c) whether or not these patterns were stable between a cohort of parents who divorced in the 1990s and a cohort of parents who divorced between 2009 and 2013. The study draws on cross-sectional Swiss

surveys that asked respondents about their incomes, emotional well-being and partnership histories. I assessed the effects of divorce by comparing parents who recently divorced from their first spouse with balanced samples of parents who are still married in their first marriage. The results suggest that in *both* cohorts, on average, mothers experience greater declines in available incomes as a result of divorce than fathers and that mothers and fathers suffer similar declines in emotional well-being. Hence, confirming the crucial role of the type of resources for the consequences of divorce, divorced fathers have an advantage over divorced mothers in available income but not in emotional well-being. Potential explanations for the historical stability of such results despite divorced mothers' greater labor market participation and the introduction of shared legal custody are mothers' increases in lowly paid part-time work, a stable low share of divorce children living with their fathers and fewer adult alimony orders.

The *third and fourth study* explicitly examine the implications of the decline in alimony awards for divorced women's economic well-being. Adult alimony emerged as an instrument to align inequality in spouses' income, wealth and child care responsibility with the possibility for marriages to end. Consequently, one explanation of the decline in adult alimony could be declining levels of inequality in economic resources and needs between spouses who divorce. However, scope for subjective judgments to influence alimony negotiations has always been vast. Furthermore, descriptions of divorce law practice show that alimony is increasingly viewed critically: it is blamed for placing a relational burden on divorced spouses – which conflicts with the ideal of "clean breaks" – and for discouraging women's employment – which conflicts with the ideal of "economic self-sufficiency". On this backdrop, I hypothesize that greater economic gender equality is not sufficient to explain the decline in alimony awards. I draw on case-level court reports of the universe of divorces enacted in Switzerland between 1990 and 2008 merged with couple income data from administrative registers to test this hypothesis. I find that wives were awarded adult alimony in every second divorce in 1990 but only in every third divorce in 2008. A Blinder-Oaxaca-decomposition analysis reveals that changes in spouses' incomes and more egalitarian child custody arrangements can explain only 13% of this decline. Also, the decline in alimony was steeper among divorces where pension assets are not divided. I therefore conclude that adult alimony has become less frequent in the observation period not mainly due to less economic gender inequality but because social and institutional support for adult alimony has lowered with the revision of divorce law in 2000.

These results suggest that insufficient levels of financial support from their ex-partners could explain the high take-up of social assistance (SA) by divorced women. In cases where divorced women's incomes run short to cover reasonable needs, Western welfare states rely on the principle of subsidiarity and on the regulations governing alimony to define who has access to social benefits.

When women in need are considered entitled to alimony, the principle of subsidiarity defends the idea that social benefits should only be permissible if their ex-husband *cannot* provide sufficient financial support. However, decreasing social and institutional support for adult alimony (the emergence of "clean break" policies) suggest that the principle of subsidiarity might be disregarded. In the fourth study of this thesis, we empirically tested this hypothesis by making use of uniquely tailored administrative data on Swiss women's SA take-up and couple earnings after marital separation. We found robust evidence in support of subsidiarity. Marital separation causes a 24-percentage point increase in the risk of SA take-up for women with few economic own resources and when their ex-husbands' earnings are located at the bottom quartile of employed men's income distribution. On the other hand, such women are nearly fully shielded from separation-induced SA take-up if their ex-husbands are top-25%-earners. These results suggest that the largest part of the public cost that accrues from marital disruption in the form of SA take-up is not attributable to "clean breaks". Rather, policies aiming to reduce divorce-related welfare expenditures should target increasing women's capacity in acquiring own economic resources.

In sum, the results of the thesis suggest that the Swiss system of spousal support which redistributes resource *after* divorce is relatively well adjusted to spouses' economic resources. Alimony is now granted in fewer instances than it used to be. This is line with a more individualistic and empowered view of women. Yet, if women are at a high potential risk of poverty after separation and their ex-partners can provide financial assistance, they can rely on spousal support payments.

Contrarily, individuals and institutions could be underestimating the consequences of lacking resources after separation *earlier in divorcees' lives*. For one, it seems that low economic resources no longer prevent individuals from incurring the risks linked to separation anymore. For another, there are conflicts between the high extent to which couples divide tasks unequally after marriage and parenthood, the high probability of separation and the extent to which lacking resources have consequences for separated individuals. More research is needed to reveal the benefits and risks of couple specialization in individualized societies.

5. Introduction

Partnership and family life in Western countries has become more diverse in the last half century. Compared to the post-war era, individuals more often remain single and childless (R. Becker and Jann 2017; Burkimsher and Zeman 2017). Furthermore, the forms of partnerships and families and their location in the life course have changed (Widmer and Ritschard 2009). Individuals are now older when they move in with a partner for the first time or have children. If they marry at all, it is usually at a much higher age than some decades ago (Cherlin 2004). Changed marriage behavior led to an increase in individuals who live in informal unions with low legal hurdles to formation and dissolution. Together with facilitated divorce procedures, such trend is related with individuals' greater tendency to end partnerships and enter new ones (Cherlin 2017; Jalovaara and Kulu 2018; Kneip et al. 2014).

The social sciences have explained the transformation of conjugal behavior with two phenomena. A first one is value change. The concept of the demographic transition (Lesthaeghe 2014) argues that individuals change their preferences if their material well-being increases (Maslow 1954). Specifically, increasing material security leads individuals to more highly value self-fulfillment (which is in line with the concept of individualization and the spread of post-modern values: Beck and Beck-Gernsheim 2002; Giddens 1991; Inglehart 1988). High commitment in partnerships and families is at odds with such individualistic preferences. Furthermore, individuals who share such values express less social disapprovement towards others who are single, childless or unmarried (Kalmijn 2010; McDermott et al. 2013; Soons and Kalmijn 2009). Hence, in contexts of growing affluence, commitment in long-term partnerships decreases because this reflects changed preferences and because social stigma associated with alternative partnership behavior declines.

A second phenomenon is changes in women's roles. Economic models of family behavior (G. Becker 1981) argue that individuals derive most satisfaction from life in couple under a gendered division of tasks. The central tenet of this theory is that due to biological differences, women are more productive than men in care and housework and vice versa in paid work. Hence, if women take care for children and do the chores and men earn income from paid work, i.e. if couples stick to a male breadwinner model (Lewis 2001), staying together brings the greatest benefit for each couple member. If however both men and women earn market incomes, couple life is less advantageous because the gains from comparative advantage between genders are not realized. From this point of view, individuals' lower commitment in long-term partnerships is a consequence of women's increased labor market participation and their lowered home production (Becker et al. 1977).

Later approaches that focused on changing gender roles have put a greater emphasis on the couples' organization of domestic tasks. Goldscheider and colleagues (2015) argued that the demographic implications of the gender revolution proceed in two phases. The first phase is characterized by women's increases in labor market participation. In accordance with economic theory, such changes in women's roles have caused their retreat from marriage and child birth. However, this approach does not suggest that women's decrease in home production caused the change in demographic behavior.

Rather, low fertility and high divorce are seen as the expression of a temporary state of a disequilibrium in gender roles (Esping-Andersen and Billari 2015). If women simultaneously contribute to household incomes but continue to carry the bulk of care and housework, long-term partnerships are unattractive to them. Contrarily, when couples more equally divide domestic tasks, women can expect more satisfying long-term partnerships. In the second phase of the gender revolution, such arrangements become more prevalent. This leads to the resurgence of women's partnership and family commitment. The two-phase revolution hypothesis is backed by the fact that among those populations where gender equality in care and housework increased most - e.g. among the highly educated in many contexts -, marriage and fertility rates recently increased and divorce rates decreased (Carbone and Cahn 2014; Goldscheider et al. 2015).

However, rather than decreasing, overall partnership instability in Western countries still increases or at least plateaus at a high level. As of now, a return to past levels of couple stability and fertility seems unrealistic (Cherlin 2016, 2017). These societies will thus have to adapt to a high incidence of separation and a high prevalence of single households. Such observation justifies why public and scholarly attention has turned to the consequences of household dynamics (Arránz Becker 2015; Härkönen 2015).

One of the main consequences of lowered partnership commitment is that constellations under which children grow up have become more diverse. Children are now more likely to live in lone parent households, to alternate between households and to share a household with reconstituted blended families (L. Bernardi and Mortelmans 2018). Such trend potentially has negative effects on children's well-being. Research has repeatedly shown that children show less positive emotional and cognitive outcomes and attain less education when not residing with both biological parents (Härkönen et al. 2017). It seems that part of this difference is due selective differences between children who do and those who do not experience a parental separation. However, a substantial part must be related to the negative causal effects of family transitions or lacking resources in single-parent households (McLanahan et al. 2013).

What are the mechanisms behind the causal effects of family transitions on individual well-being? A theoretical framework which has proven fruitful for the study of the consequences of partnership and family dynamics for both adults and children is Paul Amato's (2000) divorce-stress-adjustment model. This view understands partnership and family separation as events which are accompanied by a set of stressful transitions in multiple life domains. These include interpersonal conflict, the loss of social relationships and emotional support, residential moves as well as an increase of time pressure and monetary cost which result from the separation and formation of households. However, the model emphasizes that the extent and duration to which separation has negative well-being consequences differs strongly between individuals. It depends on the availability of social, emotional and economic resources (Amato 2000; Wang and Amato 2000). While individuals in high-income households, individuals with strong networks of social support and individuals who are stress-resistant quickly adjust to life changes following separation, individuals in near-poverty households, individuals who only enjoy low social support and individuals who are stress-sensitive might be affected from separations to extents from which they are unable to recover long after.

This thesis embraces four studies into the availability of resources for individuals' ability to deal with the consequences of partnerships separation. The socio-economic resources of separating individuals are crucial for their own outcomes *and* for the outcomes of their children (F. Bernardi and Boertien 2017; Grätz 2017; L. Leopold and Leopold 2016). This thesis therefore focuses on the availability of resources to people who are themselves ending a partnership.

The first study asks whether the expansion of individuals' educational attainment can explain increasing partnership instability in Switzerland. On one hand, higher educational attainment can be related to more partnership breakup because the higher resources associated with more education make separations more feasible and because longer educational trajectories require greater personal flexibility (Arránz Becker 2015; Nazio and Blossfeld 2003). Furthermore, couples in which the women is highly educated tend to divide tasks more equally, which, according to economic theories, reduces the gains such partnerships provide to its members. On the other hand, there is ample research that links greater socio-economic resources with more satisfied partnerships (Conger et al. 2010; Williams et al. 2015). This implies that more educational attainment is related to less partnership breakup. Hence, there are both, arguments which link the expansion of individual educational attainment with lowered partnership stability as well as theoretical arguments that predict the opposite.

Recent sociological work has helped to resolve this paradox by showing that the social context is an important moderator of the association between individual educational attainment and partnership break-up. It has repeatedly shown that at the same time as partnership instability and educational

attainment has risen, the association between education and divorce has shifted downwards from a positive level (de Graaf and Kalmijn 2006; Härkönen and Dronkers 2006; Matysiak et al. 2014). This pattern verified the long-standing hypothesis that in low divorce societies it is mostly the more affluent individuals that divorce, whereas in high divorce societies, divorce is more evenly distributed across social strata (Goode 1962).

Previous results could not confirm this pattern in Switzerland[1], but used data whose collection now dates back more than 25 years (Härkönen and Dronkers 2006). To reexamine the association between educational attainment and partnership instability with more recent and encompassing data, the study draws on a conglomerate of five surveys with information on individuals' highest educational attainment, as well as formation and dissolution histories of first marital and non-marital partnerships (non-martial cohabitations, NMC) that were formed between the 1930ies and the 2000s. It describes the relationship between individual educational attainment and the risk of partnership separation and tests whether this association was stable across partnership cohorts.

The study makes several contributions to existing research. Most importantly, finding that greater educational attainment has not predicted greater risks of separation throughout the whole period of educational expansion would imply that educational expansion *cannot* explain rising partnership instability. Such result has previously been found for marriages in Germany (Wagner et al. 2015). Second, the study provides an important reference point for ongoing research into the individual consequences of partnership separation in Switzerland. Educational attainment reflects the availability of resources in dealing with separation consequences. Consequently, a greater increase in the separation rates among the less educated compared to the more educated could indicate that individuals who separate have increasingly fewer resources at their disposal. This leads to the expectation that the consequences of partnership separation have become more severe over time. Ultimately, by pooling information on marriages and NMC it is among few to provide information on overall trends in heterosexual partnership instability.

The second study of the thesis examines the role of resources for the consequences of divorce by describing gender differences in the consequences of divorce for parents in Switzerland. In contexts in which families adhere to the male breadwinner model – i.e. where husbands invest in work careers and women perform most of the care and housework -, resources are unevenly distributed between

[1] By coincidence, in the making of this study, Villiger (2017) published an analysis of the association between women's educational attainment and the risk of marital dissolution partially based on the same data as I used. Hence, to some extent, chapter 2 can be considered a replication of Villiger's study. However, by including additional data sources, focusing on men's educational attainment and including non-marital cohabitation as well, the study provides additional insights into the association between individual educational attainment and partnership instability over time.

divorcing mothers and divorcing fathers. On one hand, divorce reveals the negative economic consequences of insufficient career investments by divorcing mothers. On the other hand, disruptions in father-child relationships after separation can be expected to foster particular declines in fathers' emotional well-being (Grätz 2017; Yuan 2016). In line with this, recent evidence for Germany has shown that mothers report steeper divorce-related declines in material well-being than fathers and that gender differentials are reversed in immaterial domains (T. Leopold and Kalmijn 2016). Given the ongoing shifts in gender roles with women catching up in earnings and husbands increasing their contribution to care and housework (among some populations), other research has formulated doubts on the historical stability of such differentials. Indeed, there is some evidence pointing to decreasing economic consequences of divorce for mothers (Jenkins 2008; Tach and Eads 2015) and lowered health consequences for men (Liu and Umberson 2008). In the second study, I examine a) whether the economic consequences of divorce are more severe for mothers than for fathers, b) whether the emotional consequences are more severe for fathers than for mothers and c) whether these patterns of gender differences in the consequences of divorce are similar between cohorts of parents who divorced in the 1990ies and parents who divorced between 2009 and 2013.

This study contributes to research into the heterogeneity of the consequences of divorce. First, Switzerland is a context with large gender differences in the type of resources parents accumulate during marriage (Le Goff and Levy 2017). Consequently, the study of gender differences in the consequences of divorce for parents provides an illustrative example of the extent to which the availability of resources determines the severity of separation consequences.

Second, family policy in Switzerland has undergone strong changes between the two study periods. Reducing gender differences in the consequences of divorce has been one of the main goals of the divorce law revision in 2000 (Büchler and Cottier 2012, p. 192). At the same time, Switzerland remains a context of low state support for work-family reconciliation (Matysiak and Węziak-Białowolska 2016) and persistent employment inequalities among parents (Liechti 2014). From a policy perspective, it will thus be interesting to see whether the changes in family policy between the 1990ies and the 2000s have been related with lower, higher or unchanged levels of gender differences in the consequences of divorce.

Thirdly, the study uses an innovative methodological design. Conventional studies assess the consequences of divorce by comparing divorcees' situation prior to the divorce with their situation after the divorce. For this purpose, such research relies on general population panel surveys. The Swiss Household Panel (SHP) has been used to study the consequences of partnership separation (Budowski et al. 2009; Kalmijn 2017; Masia 2016; Masia and Budowski 2009). However, because it was launched

only in 1999, the SHP does not allow for the comparison of the consequences of separation prior and after the revision of divorce law. To study the consequences of divorce in both periods, I use a conglomerate of cross-sectional surveys (see section "Data strategy") conducted between 1994 and 2013. These included information on individuals' partnership histories as well as their economic and emotional well-being. The measurement of the consequences of divorce relies on a cross-sectional comparison of the average well-being of divorced parents who were interviewed immediately after the divorce from their first spouse with parents who still cohabited with their first spouse at the time of the interview. Although such research design has insurmountable disadvantages (e.g. the well-known problems of unobserved heterogeneity between the divorced and the married), the study shows to what extent surveys with retrospective partnership information can provide insights into the consequences of family dynamics in contexts in which general purpose panel data is unavailable.

The *third* and *fourth* study of the thesis focus on the role of private and public transfer payments as part of divorced women's economic resources. Research has devoted considerable attention to women's employment and earnings around separation (Masia 2016; Milewski et al. 2018; Raz-Yurovich 2013; van Damme 2010) and has acknowledged its positive role for their economic adjustment to divorce (de Vaus et al. 2017; Jansen et al. 2009). From a policy perspective, however, private (spousal or child support payments) and public transfers (e.g. social assistance) are more effective tools in addressing divorcees' economic hardship. While the effects of employment policies – e.g. an expansion of the availability of external child care - on divorcees' economic well-being are moderated by individuals' behavioral reactions, higher or lower transfers directly affect individuals' economic well-being (Uunk 2004). Divorcees' transfer incomes are often subject to controversial public debates (Donovan 2017; Halla et al. 2016). Nevertheless, they have received only scant attention by prior research. The yet single review article on adult alimony[2] in empirical family research termed alimony an "anomaly in family social science" (Shehan et al. 2002).

A substantial reason for the absence of empirical inquiry into adult alimony could be the perception that it is only a marginal phenomenon (Morgan 2017). The available descriptive evidence on trends in the prevalence of alimony in the US and Germany indeed suggests that adult alimony is becoming less frequent (Bröckel and Andreß 2015; Oldham 2008). Legal scholars attribute such a trend to "complex long-term social forces" (McMullen 2014). But what exactly are these "complex long-term social forces"?

Alimony emerged in an era of yawning gaps between wives' and husbands' economic resources. Legally enforced payments from divorced husbands to their ex-wives thus had an important welfare

[2] Adult alimony is used synonymously for spousal support or spousal maintenance (Kisthardt 2008).

function once divorce became more widespread. In contexts in which women held only little economic resources and mostly took care of the children after divorce, such transfers were crucial in order to keep them from becoming dependent on social welfare. This view suggests that once inequality in income, wealth and child custody between divorcing spouses lowered, alimony has lost its core function. Hence, one explanation of the decline in alimony are lowering levels of inequality in economic resources and needs between spouses.

A survey of the theoretical and empirical literature on the determination of alimony yields one key conclusion: contrary to most child support schemes (Meyer et al. 2011), the determination of alimony for adults is often lowly regulated. This opens leeway for norms to guide alimony negotiations (Büchler and Cottier 2012; Oldham 2018; Schwenzer 2009; Starnes 2011). On this backdrop, the *third study* of this thesis argues that the decline in adult alimony could have resulted from the emergence of marital norms which conflict with alimony. Such expectation is based on the hypothesis of the deinstitutionalization of marriage, which suggests that social norms that link marriage to social privileges and obligations are weakening (Cherlin 2004). Indeed, descriptions of the state in European and American maintenance law portray that the principles of "clean breaks" and "economic self-sufficiency" have become more important hallmarks in alimony negotiations (McMullen 2014; Ribot 2011). Proponents of the "clean break" principle argue that alimony should be avoided because it implies excessive relational burdens to divorced spouses (Crowley 2016, 2017; Ribot 2011). The ideal of "economic self-sufficiency" is rooted in the fear that alimony discourages employment (Chiappori et al. 2017; Rangel 2006; Schaubert 2018) which makes it an obstacle to women's empowerment (Berghahn 2004).

Normative and institutional changes do not preclude that *economic convergence between spouses has driven the decline in alimony awards*. Yet, they predict that *such changes in divorcees' characteristics cannot account for all of the decline*. Drawing on case-level court reports of the universe of divorces enacted in Switzerland between 1990 and 2008 merged with couple income data from administrative registers from 1982 to 2008, this study tests this expectation. Performing a Blinder-Oaxaca-Decomposition analysis, it quantifies how much of the decline in the probability of adult alimony orders between the beginning and the end of the study period can be explained with changes in wives' and husbands' incomes prior to divorce judgments and increasingly egalitarian child custody arrangements.

The study has methodological, theoretical and practical implications. A methodological reason for the small number of quantitative studies into adult alimony could be data limitations. Multi-purpose survey data usually only ask about the size of transfer incomes and whether they are received from

other households or the government. Details on legal agreements underlying spousal transfers (spousal or child support payments) are often lacking (Bröckel and Andreß 2015; de Vaus et al. 2017). Previous studies into the determinants of alimony have therefore mostly used local (Doriat-Duban and Bourreau-Dubois 2012; Oster 1987; Stack et al. 1992) or state-level (Meyer et al. 2015) datasets of court decisions that contained information on individuals' economic circumstances and legal outcomes. The long-term data base underlying this study is thus among very few to provide nationally representative data on the level and trends in adult alimony as well as its determinants.

From a theoretical viewpoint, the study demonstrates the economic implications of the deinstitutionalization of marriage. The change in norms in divorce law was particularly drastic in the study context. The abolition of fault-based divorce with the law revision in 2000 has fundamentally altered argumentation in alimony negotiations (Büchler and Cottier 2012, pp. 191–201). Legal practice prior to the revision was under the influence of institutional marriage law of 1907 under which husbands where *formally* responsible for their wives' economic security. Later divorce settlement were negotiated with reference to a more gender egalitarian model of marriage (so called "Partnerschaftliche Ehe"). This research shows whether or not this shift in the normative system underlying of divorce law had consequences for the regulation of the economic consequences of divorce. Can women now rely less on alimony as a result of different interpretations of their circumstances? Ultimately, the results shed light on the reasons for the persistence of divorced women's economic hardship found in several contexts (Bröckel and Andreß 2015; Hauser et al. 2016; Le Bourdais et al. 2016). If the decline in alimony outpaced the increase in divorced women's income and shared custody – the "gender revolution" -, then reduced private transfers could explain women's high levels of public benefit take-up after divorce which can be observed now (Bröckel and Andreß 2015).

The *fourth study* of this thesis takes up this claim. In this collaborative chapter with Gina Potarca and Laura Bernardi, we test whether insufficient levels of support payments from ex-husbands can be linked to divorced women's social assistance take-up after marital separation. In the frequent situation in which women lack own economic resources to cover reasonable needs after marital separation, Western welfare states rely on the principle of subsidiarity and on the regulations governing alimony to define who has access to social benefits. When women in need are considered entitled to support payments from ex-partners (e.g. when they have custody over children), the principle of subsidiarity defends the idea that social benefits should only be permissible if their ex-husband cannot provide sufficient financial support.

There are two pieces of evidence that motivate the hypothesis that the principle of subsidiarity is not respected any more. On one hand, there has been the above-mentioned downward trend in adult alimony (Oldham 2008; Ribot 2011). On the other hand, government transfers are making up increasing parts of divorced women's incomes in Germany (Bröckel and Andreß 2015). Individual-level data on long-term trends in public benefit receipt in Switzerland is unavailable but, given the similarities between the contexts, it could be that such trends also hold for Switzerland. Hence, it seems possible that part of the burden of women's financial hardship after divorce was shifted from ex-partners to the state. On this backdrop, we hypothesize that women take-up social assistance after divorce despite having a solvent ex-partner and despite being eligible to either spousal or child support payments. This implies a violation of the principle of subsidiarity.

In this study, we tested this hypothesis by examining the association between husbands' earnings and the effect of marital separation on women's social assistance receipt. We analyze a uniquely tailored dataset based on a sample of respondents of the Swiss Labor Force Survey, whose responses we linked to administrative data on marriage and divorce, household separation and the receipt of monetary social assistance.

We compare the effect of marital separation on women's social assistance take-up by combinations of women's and husbands' income strata. A first contribution of this research therefore is that we show how women's risk of poverty entry due to marital separation is related to the economic status of couples. This has implications for processes of cumulative disadvantage (DiPrete and Eirich 2006). If marital separation increases poverty risks for women exiting low income couples to a greater extent than for women exiting rich households, then divorce reinforces existing social inequalities (Augustine 2014; Mclanahan 2004).

Previous research has advocated the idea that divorce increases poverty rates similarly across social classes (L. Leopold and Leopold 2016; Vandecasteele 2011). We argue that this interpretation is distorted because it relies on indicators of at-risk-of relative household income poverty. Contrarily, by indicating a lack wealth and non-pecuniary transfers, social assistance take-up is a better indicator of the experience of absolute poverty. Therefore, it allows for more stringent conclusions on whether or not women from different social strata experience diverging life circumstances after divorce.

The main policy implication of the results are whether the trend towards "clean breaks" had indirect consequences for the welfare state. If the principle of subsidiarity is violated, then part of the public cost that accrues to the state could be avoided by reinforcing transfer payments from ex-partners. Contrarily, if the principle of subsidiarity holds, then policies seeking to reduce effect of marital

separation on social assistance take-up must rather target at increasing women's capacity in acquiring own economic resources.

The overarching question of all four studies of this thesis is whether separated individuals have access to the appropriate amount and types of resources. All studies could reveal instances in which such condition is not met. Thereby, the thesis draws the attention to acts that caused such insufficiency in resources. Do actors underestimate the risks of a lack of resources after partnership separation?

The first study considers the decision to separate. If individuals with low socio-economic resources separate as often as individuals with high socio-economic resources, it could be that *individuals* underestimate the risk from separation when they decide to separate. The second study considers couples' decision on how to divide tasks. Given mothers suffer strong material and fathers strong immaterial consequences from divorce, it could be that *couples* underestimate the risks of separation when they decide to adhere to specialized roles. The third and fourth study consider the reallocation of economic resources after divorce by institutions. The third study shows whether the decline in alimony orders happened at a steeper rate than increases in women's incomes and egalitarian child custody arrangements. This indicates whether expectations on women's economic self-sufficiency have increased. The fourth study tests whether women take-up social assistance take-up after divorce even though their ex-partners could– i.e. they would have the resources to do so – and should provide financial assistance – women would be eligible to support payments. Confirming the expectations of the third and fourth studies could indicate that the economic risks of divorce for women are underestimated by the *system of spousal support*.

6. The Influence of Educational Expansion on Partnership Stability: A Cohort Study of First Partnerships in Switzerland

6.1. Introduction

Educational expansion figures prominently in accounts of rising divorce rates (Arránz Becker 2015; Diekmann and Schmidheiny 2001; Lesthaeghe and Neels 2002; Wagner et al. 2015) even though the micro-level association between educational attainment and the dissolution of intimate partnerships remains ambiguous. While socio-economic resources have been found to be a good predictor of the quality and stability of partnerships (Conger et al. 2010; Jalovaara 2012a; Williams et al. 2015), there are important caveats. For one, the advantages accruing from education can also make separation easier: the cultural resources and social opportunities that highly educated men and women have access to can give them a superior ability to cope with the consequences of a breakup, thereby making it more feasible (Leopold and Leopold 2016). For another, economic models suggest that the benefits deriving from higher educational attainment are subject to a gender divide: the increased resources foster partnership stability with respect to men's educational attainment, but lower the stability of partnerships involving highly educated women insofar as their professional obligations diminish their contributions to the couple's household work (Becker 1981). Determining the influence that educational expansion has had on partnership stability thus hinges on whether educational attainment is associated with higher or lower rates of partnership breakup and, because women experienced more significant increases in educational attainment (OECD 2016), whether the association differs between men and women. The first part of this chapter addresses these two issues on the basis of a sample of first partnerships that formed between 1935 and 2007.

Educational expansion can only explain increasing partnership breakup rates if greater individual educational attainment increases the risk of separation and if this positive educational gradient has remained stable over time. However, a large and growing line of research stresses that the association between educational attainment and partnership behavior depends upon the social and historical context (Bernardi and Martínez-Pastor 2011; de Graaf and Kalmijn 2006; Härkönen and Dronkers 2006; Kalmijn 2013; Martin 2006; Matysiak et al. 2014; Puur et al. 2016; Teachman 2002). The working assumption of this chapter is that three different factors have contributed to lowering the initially positive educational gradient of first partnership breakups. First, groups of differing educational status have become more similar with respect to attitudes on partnership behavior. Second, increasing social

acceptance of separation has led to larger increases in breakup rates among the less educated than among the more educated. Third, while the first two processes hold for both genders, the changes have been more pronounced for women than for men. Taking these assumptions as points of departure, the second part of the chapter examines whether during the social change that accompanied educational expansion the educational gradient of partnership breakup changed from being positive to being neutral or negative; and, if so, whether this change was more pronounced for women's educational attainment. Finally, the extent to which increases in men's and women's educational attainment can serve as an explanation for historical changes in partnership stability is then quantified in light of the empirical results shown in the first and the second part.

The crucial question is, would the probability of partnership breakup be lower for today's couples if the increase in educational attainment had not taken place? Yet, a coherent answer to this question requires taking another development into account. At a time when marriage rates are decreasing and there is a growing tendency to postpone marriage, a comprehensive picture of trends in first partnership breakups cannot ignore the steadily rising trend of nonmarital cohabitation (NMC) (Härkönen 2015). Since NMCs involve a lower level of formal commitment and a lower exit cost than marriages, the rising number of NMCs is likely to have contributed to the overall increase in partnership instability (Jalovaara 2012a). That the rise of NMC has coincided with educational expansion is also unlikely to be purely accidental. While highly educated (and often affluent) individuals, particularly men (Xie et al. 2003), may represent more attractive potential marriage partners (Jalovaara 2012b), their better ability to cope with separation and the uncertainties accompanying partnerships that form during the course of long educational trajectories, may also entail that they are more likely to remain unmarried in their first partnerships (Nazio and Blossfeld 2003; Ní Bhrolcháin and Beaujouan 2013). Thus, in effect, if highly educated individuals are more likely to live in NMCs in first partnerships, the rise in NMC can be presumed to have reinforced the role of educational expansion in increasing partnership instability. Conversely, if lesser educated individuals are more likely to live in NMCs, the role of educational expansion in partnership instability can be presumed to have been mitigated by increases in NMC.

In terms of NMC, Switzerland seems a particularly instructive case. While in 1979 half of the cantons prescribed penalties for nonmarital cohabiters, by 1996 NMC had been legalized in every canton. By providing a comprehensive picture of trends in first partnership separation for marital and non-marital unions alike, this study aims to enrich existing research on the impact of educational expansion (Wagner et al. 2015). It also tests the robustness of the results found by Härkönen and Dronkers (2006), who concluded that there was no change in the educational gradient for divorce among Swiss women. The "gender revolution" in Switzerland has been comparatively mild (Goldscheider et al. 2015; Levy et

al. 2002), with a large part of the increase in women's employment being attributed to part-time jobs (Liechti 2014). Nevertheless, by considering the effects of men's and women's education independently, this study helps to discern the relative importance of changes in the educational gradient of separation that are specific to women as well as those which are less gender specific.

6.2. Exchange-theoretic and economic explanations of educational expansion and partnership stability

Educational attainment is linked to the criteria that exchange-theoretic and economic models of the micro-level mechanisms of partnership behavior consider relevant for partnership stability: *partnership quality*, the *opportunity structures* individuals face when considering breaking up and the *investments* individuals make in the relationship (Arránz Becker 2015; Becker et al. 1977; Lewis and Spanier 1979; Rusbult 1983). Looking at the arguments related to each of these criteria more closely is instructive for the development of theoretical expectations on the influence of educational expansion on partnership stability.

There is a branch of research that consistently associates higher *partnership quality* with more affluent social groups (Conger et al. 2010). Studies in this vein argue that a higher living standard and social status (Jalovaara 2012a), later matches (Kuperberg 2014) and higher levels of personal satisfaction and well-being (Amato and Rogers 1997) are skewed towards more educated groups and associated with higher partnership satisfaction and stability. Better educated individuals, moreover, are thought to be more likely to enter partnerships from educationally homogenous partner markets such as universities (Schwartz and Mare 2005), making them more likely to perceive their partnerships as satisfying (insofar as they share a greater range of common interests and behaviors with their partners) (Arránz Becker 2015). Economic arguments used to explain why education could *lower* partnership satisfaction, on the other hand, focus firmly on *women's* education. Because women, even if they are well-educated, often earn less than their husbands, such arguments posit that couples attain the highest levels of utility if men specialize in a career while women specialize in housework, where they have a comparative advantage (Becker 1981). Since the opportunity cost of remaining out of the labor market is higher for well educated women than it is for less educated women, the probability that one of the partners will specialize in household work is diminished for couples in which the woman holds a higher degree. As a consequence, this partnership dynamic delivers lower gains to the couple and heightens their risk of separation (Becker et al. 1978).

Opportunity structures, i.e. alternatives to continuing a partnership, mitigate the barriers to separation (Arránz Becker 2015). A higher level of education makes the transition following a breakup

easier insofar as a couple's economic, cultural and social resources reduce the immediate and more distant consequences of separation. People with higher levels of education have been shown, for instance, to more readily overcome the economic consequences of divorce (Leopold and Leopold 2016), to experience lower drops in social support in the aftermath of separation (Kalmijn and Uunk 2007) and to encounter less difficulties re-partnering after separation (Ivanova et al. 2013).

Micro-level models lead to conflicting assumptions on the role that educational attainment plays in the transition from cohabitation to marriage (Maslauskaitė and Baublytė 2015; Ní Bhrolcháin and Beaujouan 2013). It is clear that marriage, as a form of *partnership investment,* complicates separation just as material (e.g., shared homeownership) or immaterial (e.g., children) (Wagner et al. 2015) investments do (Kopp et al. 2010; Rusbult 1983). What is less clear is how the probability to marry is effected by being well educated. On the one hand, socio-economic resources can help to speed up transitions from cohabitation to marriage (Jalovaara 2012b), particularly for men (Xie et al. 2003). On the other, the extensive time required to complete their education makes it more likely that highly educated individuals enter first partnerships during the course of their studies. Since NMC allows for greater flexibility than marriage it may be seen as a preferable option for couples who have not yet established their professional careers (Nazio and Blossfeld 2003; Ní Bhrolcháin and Beaujouan 2013).

In sum, exchange-theoretic and economic models of partnership stability paradoxically place individuals with more education at both a higher and a lower risk of partnership breakup than individuals with less education. To resolve this paradox within the parameters of such theories entails choosing among the following mutually exclusive hypotheses. *Either* the link between education and partnership stability is mainly determined by higher marriage rates and partnership quality, in which case *less educated individuals are more likely to end a first partnership than more educated ones (H1a)*, and *educational expansion has contributed to more stable partnerships*. *Or* the link is mainly determined by the uncertainty of longer educational trajectories and attractive alternatives to continuing the partnership, in which case *individuals with a higher level of education are more likely to end a first partnership than less educated ones (H1b)*. Lastly, economic models lead to the hypothesis that *higher educational attainment among women more strongly increases separation risks than higher educational attainment among men (H1c)*. Hence, H1b suggests that *educational expansion has decreased partnership stability* and H1c that this influence mainly originates from women's increase in educational attainment, given its more substantial *and* influential nature.

6.3. Social change and education-specific breakup rates

The second part of this chapter turns to accounts that suggest that the balance between the contradictory hypotheses above critically depends upon the social context (cf. Härkönen and Dronkers 2006; Kalmijn 2013), i.e. the normative and economic environments that influence the formation, institutionalization, maintenance and separation of partnerships (Arránz Becker 2015). This perspective is used here to examine how changes in *compositional differences* between educational groups and *education-specific behaviors* in partnerships have altered the role educational expansion has played in changing partnership stability. These changes are expected to have been intertwined with the gender revolution (Goldscheider et al. 2015) and concomitant *changes in gender relations*.

Research suggests that there has been a gradual convergence in the composition of different educational groups regarding characteristics related to partnership behavior. Alongside the sheer numerical increase of higher educated groups, that is, there has been a change in the attitudinal composition of these groups. In the US, for instance, the reported attitudes in favor of divorce decreased among highly educated and increased among lowly educated young adult women between 1970 and 2000 (Martin and Parashar 2006). Whether the *economic status* of educational groups has converged over the same time, however, is a more controversial question. Although educational groups seem to have become more similar in their occupational prestige (Klein 2015), the association between educational attainment and occupational class seems relatively rigid (Bukodi et al. 2016).

A second point has to do with the interconnections between the diffusion of new forms of partnership behavior, their social acceptance and the *adaptation of these behaviors by lower educational groups*. A central principle of scholarship on the diffusion of innovation is that barriers to new forms of behavior are greatest at the early stages of their diffusion (Rogers 2003). The boundaries that can serve to hinder the advance of new forms of behavior emerge in part from uncertainty about a given behavior's advantages and disadvantages, which, in turn, may reinforce certain socially shared valuations. Several studies have applied these ideas to partnership behaviors to argue that the level of diffusion of NMC or divorce exercises an influence on its social acceptance (Kalmijn 2010; Liefbroer and Dourleijn 2006; Schnor 2014; Soons and Kalmijn 2009; Verbakel 2012). The level of social acceptance, in turn, is believed to influence the partnership behavior of less educated groups (de Graaf and Kalmijn 2006). When NMC and divorce are associated with high social or legal disapproval (as, e.g., evidenced by prohibition laws or complicated legal procedures), it is likely that NMC and divorce are limited to those groups which are most able to deal with social or legal disapproval. The power and resources stemming from educational attainment foster greater abilities to deal with social sanctions and legal impediments (Matysiak et al. 2014). When such impediments are prevalent, therefore, less

educated individuals can be expected to be less likely to live in NMC, or to divorce once they have married. As the diffusion of NMC and divorce increases and social hurdles are lessened, however, these groups become more likely to adopt such behaviors (Bernardi and Martínez-Pastor 2011; Härkönen and Dronkers 2006; Maslauskaitė and Baublytė 2015; Ní Bhrolcháin and Beaujouan 2013; Puur et al. 2016).

Reductions in the compositional and behavioral differences between educational groups are also related to changes in the roles women play within partnerships. There are four main theories that address the question of how *changes in gender relations* have contributed to modifying the association between level of education and partnership breakup. One suggests that with the *normalization of women's participation in the labor market* women in lower educational strata have also come to be more likely to be gainfully employed (Liechti, 2014). This, in turn, has lowered differentials in the abilities of women from various educational strata to cope with separations; and it has potentially made NMC and divorce more of an option for less educated women (Härkönen and Dronkers 2006; Matysiak et al. 2014). A second focuses on gender differences in educational expansion. In Switzerland, as well as in many other countries, the increase in educational attainment over the last few decades was more pronounced for women than for men (OECD, 2016). Due to the *leveling of gender ratios within higher educational groups*, increases in educational homogamy can be expected to have been particularly pronounced among the upper echelon of the educational distribution (Diekmann and Schmidheiny 2001; Schwartz and Mare 2005). This trend can be posited to have increased the partnership stability of those with higher levels of education (Arránz Becker 2015). A third builds on the idea that traditional gender norms prevent men from contributing to the couple's housework even if the female partner outearn them (Grunow et al. 2007). Because highly educated women are more often the primary contributors in their household than less educated women, their satisfaction with their partnerships has particularly benefited from a decline of such norms. Finally, a fourth argument emerges from the influence of *gender norms on partnership instability*. At a time when women's labor market participation was lowly valued, couples in which the woman held a high educational degree and was engaged in the labor market were unlikely to receive much social support. As norms and behaviors became adapted towards more egalitarian arrangements, however, women's education and economic independence have received more social support, making them less of a threat to the stability of partnerships (Matysiak et al. 2014; Schwartz and Han 2014; Killewald 2016). Despite their differing points of emphasis, where all arguments centering on social change generally tend to agree is that the association between educational achievement and partnership breakup has become less important in recent decades.

Since decreasing social and legal hurdles to NMC and divorce are expected to have increased breakup rates among lower social strata, and increased homogamy is expected to have particularly decreased breakup rates among higher social strata, *I hypothesize that the educational gradient in partnership breakup was positive among the older cohorts and has steadily decreased since (H2a).* Changes in the labor market position of lesser educated women, the increasingly egalitarian partnerships of highly educated women and the higher social acceptance of their consistently higher labor market engagement, however, lead to the further hypothesis that *the level of the initial positive educational gradient as well as its subsequent decrease have been more pronounced for women than for men (H2b)*. It is probable that these processes were reinforced by a convergence of educational groups with respect to their attitudes on partnership behavior.

Table 1 presents an overview of the hypotheses derived from exchange-theoretic and economic models and social-theoretical accounts. The first row lists their predictions concerning the association between education and partnership breakup, as well as their gender- and cohort-specificity. The second row presents the implications of the hypotheses for two contrary scenarios that illustrate the influence of educational expansion on partnership breakup: (A) how much the probability of breakup would change for a recent cohort given a scenario in which it had the same (lower) levels of education as older cohorts, and (B) how much the probability of breakup would change for an older cohort if it had had the same (higher) levels of education as more recent cohorts. H1a and H1b predict an inverted effect for the two scenarios: if, for example, education is positively associated with breakup (H1b), in scenario A the recent cohort would have a lower probability of breakup than observed, while the older cohort in scenario B would have a higher probability of breakup. Under H2a and H2b, on the other hand, only scenario B makes a difference: since educational level does not exert an influence over the recent cohort, changes in its educational distribution have no consequences for partnership stability.

Table 1. Overview of hypotheses and their consequences for standardization scenarios

		Universalistic models		Social theoretical accounts
Association between education and partnership breakup		H1a: -	H1b: + H1c: ++ for women	Older cohort: H2a: + H2b: ++ for women
				Recent cohort: H2a: 0 H2b: women 0
Difference in breakup probability: scenario vs. observed	**Scenario A: recent cohort with educational distribution of older cohort**	higher	lower	no change
	Scenario B: older cohort with educational distribution of recent cohort	lower	higher	higher

6.4. Sample and measures

The analyses draw on the combined data from four Swiss surveys that retrospectively assessed partnership histories: The Family and Fertility Survey (1994 and 1995, henceforth FFS), the biographical surveys from the first (2001/2002, SHPI) and the third (2013 and 2014, SHPIII) sample of the Swiss Household Panel and the Inquiry on Families and Generations (2013, IFG). Population universes always refer to the Swiss population in the sample year. Results are reweighted to adjust for survey design (all surveys) and non-response bias (SHP) (BFS (Federal Statistical Office) 2016; FORS 2015; Voorpostel et al. 2016). Weights were normed such that each survey is represented in first partnership cohorts according to its actual representation in specific cohorts and such that observations keep their relative

importance with respect to other observations of the same survey. Statistical inference thus parts from the assumption that all partnerships in a given cohort are random draws from these cohorts.[3]

Based on data plausibility and the comparability between cohorts and datasets, several restrictions were made. First of all, partnerships are restricted to *first significant heterosexual partnerships*[4], *no matter their timing* in the life course. Significance is marked by entering either into a common household or direct marriage. Less significant forms of relationships, such as dating partnerships, are not considered. Two types of first partnerships are distinguished: *first NMCs and first marital partnerships.* NMCs are cohabitations with an intimate partner that never turned into marriages, and first marital partnerships are either cohabitations with an intimate partner that led to marriage (premarital cohabitations, PMC) or marriages that preceded or coincided with the start of cohabitation (direct marriages). A core problem with this binary distinction is that the shorter a given cohort is observed (i.e. the shorter the time between survey and formation year), the higher is the share of NMCs that will eventually turn into marriages. In order to reduce this bias, I excluded 2,196 first partnerships that had been observed less than 6 years at the moment of the survey.[5] Another 191 observations were excluded due to the restriction of the age at formation to 15 to 45.[6] Finally, 138 cases were excluded due to lack of information on the variables used (see below). The analyses in this chapter thus draw on a total sample of 23,310 first partnerships formed between 1935 and 2007, of which 18,722 were marriages and 4,588 NMCs.

The main dependent variable is the *duration of first partnership,* measured in number of years. Duration is calculated as the difference between the calendar year in which the first partnership ended (or the year of the survey if the observation is right-censored) minus the calendar year of formation. The moment of formation is defined either as the year the couple moved in together, or the year of marriage, depending on which event happened first. The end of a marital relationship is defined either as the separation from the spouse (IFG, FFS), or a change in civil status (SHPI, SHPIII[7]). The end of a NMC is the dissolution of the relationship with a co-resident partner (IFG), or the end of the common household with the partner (FFS, SHPI, SHPIII).[8]

[3] Results base on the assumption that underrepresentation of the oldest cohorts due to age restrictions in surveys (IFG), mortality or emigration does not affect the hypothesized associations.
[4] Homosexual partnerships have, if identifiable, been excluded (IFG, FFS). In the IFG, this concerns 0.6% of all first partnerships.
[5] The general conclusions of the chapter are robust to larger (e.g., 8 years) or shorter minimal observation periods.
[6] 45 was chosen as the upper limit in order to decrease bias to due mortality among older cohorts.
[7] Strongly deviating from official numbers on "legal separations", most endings of marital relationships in SHPI and SHPIII were reported as "legal separations" and not as "divorces". This suggests that respondents had often reported the end of marital relationships as a change in civil status.
[8] For the SHPI it is not possible to exclude endings of NMC due to death of partner.

Trends in historical time are approximated with *first partnership cohorts*. Cohorts are comprised of first partnerships that were formed in the same historical time period. Depending on the type of analysis, I chose different cohort group widths.

Educational attainment was measured in terms of the number of years of education and was recoded from given information on the highest diplomas achieved by respondents.[9] This type of recoding implies constant, linear effects on the separation risks of an additional year of education and ignores qualitative differences between diplomas with identical duration. *Educational homogamy* is measured by whether partners fall into the same educational category and is restricted to respondents of the IFG. The analyses that refer to education as a categorical variable are supplemented with information on category definitions.

Educational attainment relates to many other dimensions that affect marriage or separation decisions. To reduce the mediating effects of these correlates, estimates are controlled for three factors that are associated with partnership breakup. *Age at formation* measures the age at which the respondent entered the partnership. Research shows that the risk of separation is lower for couples that formed at older ages, which is true for NMCs, PMCs and direct marriages. An important interpretation of this finding relates it to ongoing personal development and the associated likelihood of mismatches for young couples (Kuperberg 2014). *Parenthood* is measured according to whether the respondent has had his or her first child during or prior to the relationship. It can be assumed that parenthood during the partnership fosters relational stability, as it represents a form of investment in the partnership (Wagner et al. 2015). The relationship is less clear when the child was born before the partnership started, since this can indicate that a person other than the one the respondent entered the partnership with is the co-parent. *Parental separation* is measured according to whether the respondent's parents are separated. Parental separation has been shown to decrease the likelihood of marriage (Erola et al. 2012) and to increase the risks of separation (Diekmann and Schmidheiny 2013).

6.5. Educational expansion, the spread of NMC, and changes in cohort characteristics

Table 2 reports the characteristics of consecutive cohorts in the sample. Educational expansion is reflected in an average increase of 2.6 years of schooling for women and 1.5 years for men between

[9] Highest education achieved was translated into years of education using the information of the Federal Office of Statistics for 1997: „No diploma“ 8 years; “Obligatorische Schule” 9 years; “Anlehre” 9.75 years; “Handelsschule/Haushaltslehrjahr” 10 years; “Berufslehre” 10.5 years; “Diplommittelschule” 11.5 years; “Vollzeitberufsschule, Berufsmaturität, Meisterdiplom/Fachausweis” 12 years; “gymnasiale Maturität, Techniker-/Fachschule” 12.5 years; “höhere Fachschule/HTL/HWV” 15 years; “Uni/Hochschule” 17.5 years; “Others” 9 years (Jann and Engelhardt 2008, 47).

the oldest and the youngest cohort. The most striking change in the other characteristics of the cohorts is the increase in NMC. While around 95% of first partnerships formed before the 1970s led to marriage, this share has sunk strongly in the more recent cohorts. Among all cohabitations formed in the year 2000, only 61% had become marital by 2013. In most cohorts, individuals with tertiary education showed the *highest tendency to remain unmarried in first partnerships*. This pattern is in line with the idea that the most educated groups, possibly due to their extended educational trajectories, less frequently institutionalize their first partnerships with marriage. However, theoretical predictions from diffusion models that declare a decrease in the educational gradient do not hold for the spread of NMC in Switzerland (Ní Bhrolcháin and Beaujouan 2013). Although the level of educational differentials varies between cohorts, the most highly educated individuals consistently showed the highest ages at formation, the lowest rates of fertility in first partnerships and the largest share of individuals who experienced parental separations. In all but the most recent cohort, moreover, they had the lowest share of educational homogamy. In line with the predicted effect of leveling gender ratios in institutions of higher education, increases in educational homogamy were strongest among upper educational groups.

Table 2. Changes in characteristics across cohorts of first partnerships

	Years of education, avg.		**Share NMC, %**			**Age at formation, avg. years**			**Has a child before or after formation, %**			**Experienced parental separation, %**			**Share homogamous in education, %**			**N, Total**
	Women	Men	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	
Before	10.4	11.6	3	5	2	24	25	26	81	78	81	3	3	5	65	41	13	1009
1960s	10.7	11.9	4	4	7	23	24	25	87	84	81	3	5	6	65	54	39	3380
1970s	11.2	12.1	7	8	14	23	24	25	86	80	76	5	7	7	61	64	42	5162
1980s	11.5	12.3	10	15	17	24	25	26	84	76	69	10	10	12	63	64	45	6117
1990s	12.3	12.8	20	29	36	25	26	27	71	63	56	7	17	16	64	61	51	4713
2000s	13	13.1	22	42	42	27	26	28	71	55	51	18	20	22	54	59	59	2929

Notes: L = less than vocational degree (< 10.5 years of education), M = vocational or general education (> 10.4 and < 12.6), H = higher vocational or tertiary degree (> 12.5). Numbers on educational homogamy based on IFG only.

6.6. The influence of educational expansion on partnership breakups

First partnerships have become less stable in Switzerland (see Figure 1). While only 13% of marital partnerships formed before 1975 separated within the first 20 years of marriage, this share more than doubled to 27% for those formed after 1989. NMCs, meanwhile, have become slightly more stable across cohorts during the initial years of partnerships. In the longer run, however, NMCs remain far less stable than marriages: in the most recent cohort 82% of couples living in NMC dissolved before reaching 20 years together compared to 76% in the oldest cohort. Hence, NMC is clearly and consistently less stable than marriage, and the overall increase in separation rates is stronger when accounting for unmarried cohabitation. This becomes clear when comparing increases in separation rates between marital partnerships and the pooled sample: with an increase from 16% to 44%, the rise in the rate of breakup after 20 years is considerably steeper in the pooled sample.

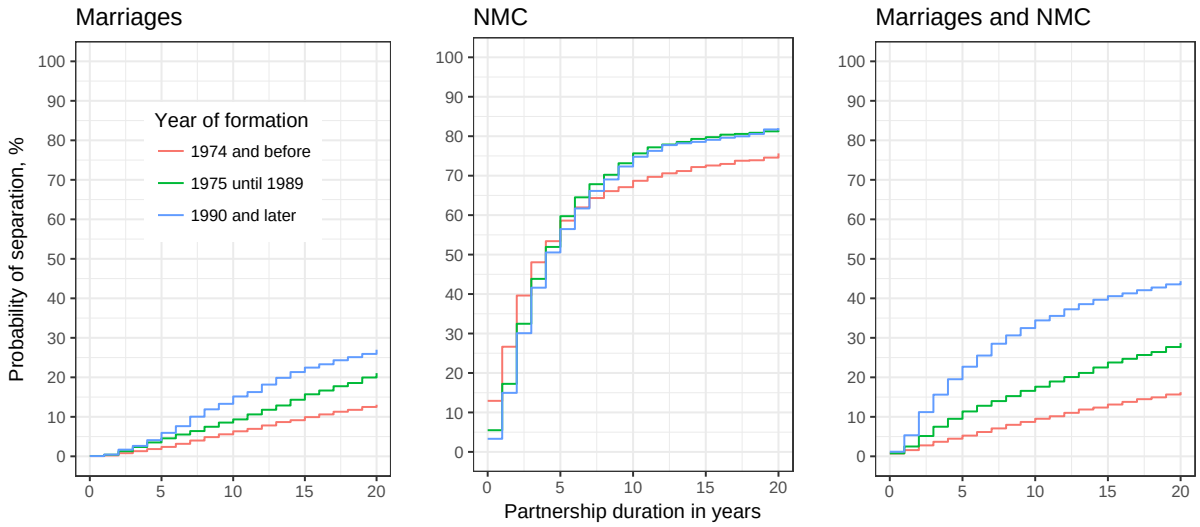


Figure 1. Cumulative separations for three cohorts – Marriages, NMC and Marriages and NMC pooled together

What role has the expansion in individual educational attainment played in the overall trends in partnership stability? To answer this question, I estimated Royston-Parmar flexible parametric models of the log cumulative hazard function of breakups of first partnerships in the pooled sample. This type of survival regression is advantageous because it allows for the direct modelling of different shapes of cumulative hazard functions for NMC and marriages using time-dependent dummies for the type of partnership (Royston and Lambert 2011), which strongly improves the fit of the model.

The results are presented in three parts. In the first, Table 3 contains coefficients from varying models: a first model including cohort dummies, educational attainment and control covariates (age

at formation, formation before and after the birth of the first child, and parental separation) (Model 1); an identical model testing for gender differences in the coefficient for educational attainment (Model 2); a model including time-dependent effects of NMC (Model 3); and the same model including a dummy for educational homogamy (Model 4). In the second part, Figure 2a and Figure 2b reveal the dynamics underlying the average-across-cohort effects of educational attainment based on gender-specific cohort-education interactions (see Table 4 appendix). The third part (Figure 3) distills this information and compares observed and standardized trends in the predicted probabilities of partnership breakups (Klein, 2005). One comparison is of the predicted probability of breakup for the 1960's cohort with their given distribution of education to two scenarios in which their distribution is reweighted to that of the 1980s and the 2000s, respectively. The second comparison, conversely, is of the level for the 2000's cohort to two scenarios in which it assumes the educational distribution of the 1980s and 1960s, respectively.

On average across all cohorts, education was positively but moderately associated with partnership breakup: in opposition to H1a but confirming H1b, an additional year of education increased the cumulative hazard function of breakup by 3.4% (p<.001, Model 1); this overall coefficient was driven by the higher coefficient for women's education (5.5%, p<.001); and in support of H1c, gender differences were significant (p<.001, Model 2). Accounting for NMC (Model 3) strongly flattens the trend of cohort dummies, which underlines the importance of NMC for increasing breakup rates. NMC's contribution to the higher average breakup rates among more highly educated strata is also supported by the further reduction of the already small average coefficient of education than in model 1. Estimated coefficients for control variables and educational homogamy (Model 4) are in line with expectations: having experienced parental separation and having had a child before the partnership started increased the risk of separation; while being older at the time of formation, having a child during the partnership and being in an educationally homogamous partnership reduced it.

Table 3. Covariate effects on the cumulative hazard function of separation of pooled first partnerships

	1) Cohorts, controls and education	2) Gender interaction	3) NMC	4) Educational homogamy
Before 1960s: reference (1970s)	0.458***	0.462***	0.620***	0.506***
	(0.0496)	(0.0500)	(0.0641)	(0.0984)
1960s	0.720***	0.721***	0.803***	0.610***
	(0.0406)	(0.0407)	(0.0446)	(0.0497)

1980s	1.465***	1.462***	1.312***	1.383***
	(0.0659)	(0.0658)	(0.0576)	(0.0845)
1990s	2.123***	2.110***	1.494***	1.709***
	(0.102)	(0.101)	(0.0732)	(0.113)
2000s	2.349***	2.322***	1.224**	1.729***
	(0.138)	(0.137)	(0.0762)	(0.143)
Education overall	1.034***		1.023***	1.015*
	(0.00554)		(0.00536)	(0.00716)
Education women		1.055***		
		(0.00721)		
Education * men		0.962***		
		(0.00985)		
Educational homogamy				0.595***
				(0.0255)
NMC vs. marriage: p0			9.243***	9.693***
			(0.591)	(0.798)
Time-v. effect: NMC * p25			0.380***	0.519***
			(0.0327)	(0.0579)
Time-v. effect: NMC * p50			0.891	1.144
			(0.0647)	(0.112)
Time-v. effect: NMC * p75			0.965	0.926
			(0.0332)	(0.0430)
Time-v. effect: NMC * p100			0.942***	0.965
			(0.0119)	(0.0184)
Age at formation	0.946***	0.946***	0.958***	0.963***
	(0.00361)	(0.00360)	(0.00331)	(0.00428)

Had child before formation	2.936***	2.953***	2.585***	2.401***
	(0.258)	(0.260)	(0.232)	(0.304)
Child during partnership (time-varying)	0.262***	0.263***	0.430***	0.457***
	(0.00909)	(0.00910)	(0.0186)	(0.0249)
Parental separation	1.458***	1.456***	1.267***	1.206**
	(0.0641)	(0.0640)	(0.0552)	(0.0748)
Constant: p0	0.137***	0.138***	0.0636***	0.0804***
	(0.0101)	(0.0102)	(0.00576)	(0.00684)
Internal knot 1: p25	5.452***	5.454***	10.51***	10.30***
	(0.115)	(0.115)	(0.874)	(1.059)
Internal knot 2: p50	1.595***	1.594***	1.962***	1.877***
	(0.0262)	(0.0262)	(0.138)	(0.171)
Internal knot 3: p75	0.950***	0.950***	0.993	1.015
	(0.00931)	(0.00932)	(0.0324)	(0.0426)
External knot: p100	1.036***	1.036***	1.061***	1.060***
	(0.00600)	(0.00600)	(0.0111)	(0.0147)
AIC	37650.6	37629.8	33349.0	17851.4
N splited episodes	33834	33834	33834	17512
N events	7081	7081	7081	3822
N responents	23310	23310	23310	12274

Notes: Reported are exponentiated coefficients indicating the factor by which the cumulative hazard functions change with the covariate. The effect of having a child during the partnership is time-varying using the method of episode splitting. Model 4 is restricted to respondents in the IFG. All other models include dummies for data source (not reported). * $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$, Standard errors in parentheses. Table created with esttab (Jann 2007).

Figure 2a and Figure 2b illustrate the effects of an additional year of schooling for women and men by ten-year-formation cohorts. Decreasing educational differentials in breakup rates for both men and women caused the effects of an additional year of schooling to tend towards one, indicating no

association. More specifically, the effects of education shifted from being positive on a statistically significant level to being statistically non-significant. This supports the hypothesis of a positive educational gradient at earlier levels of diffusion and a less positive gradient in a context where divorce and NMC have become more prevalent (H2a). Although this general pattern also holds for men[10] (the strongest positive effect for men was in the 1970s cohort and decreased thereafter), it is more pronounced and consistent for women (H2b).

[10] The pattern also holds for men when adjusting for their partner's education (based on IFG only, not reported).

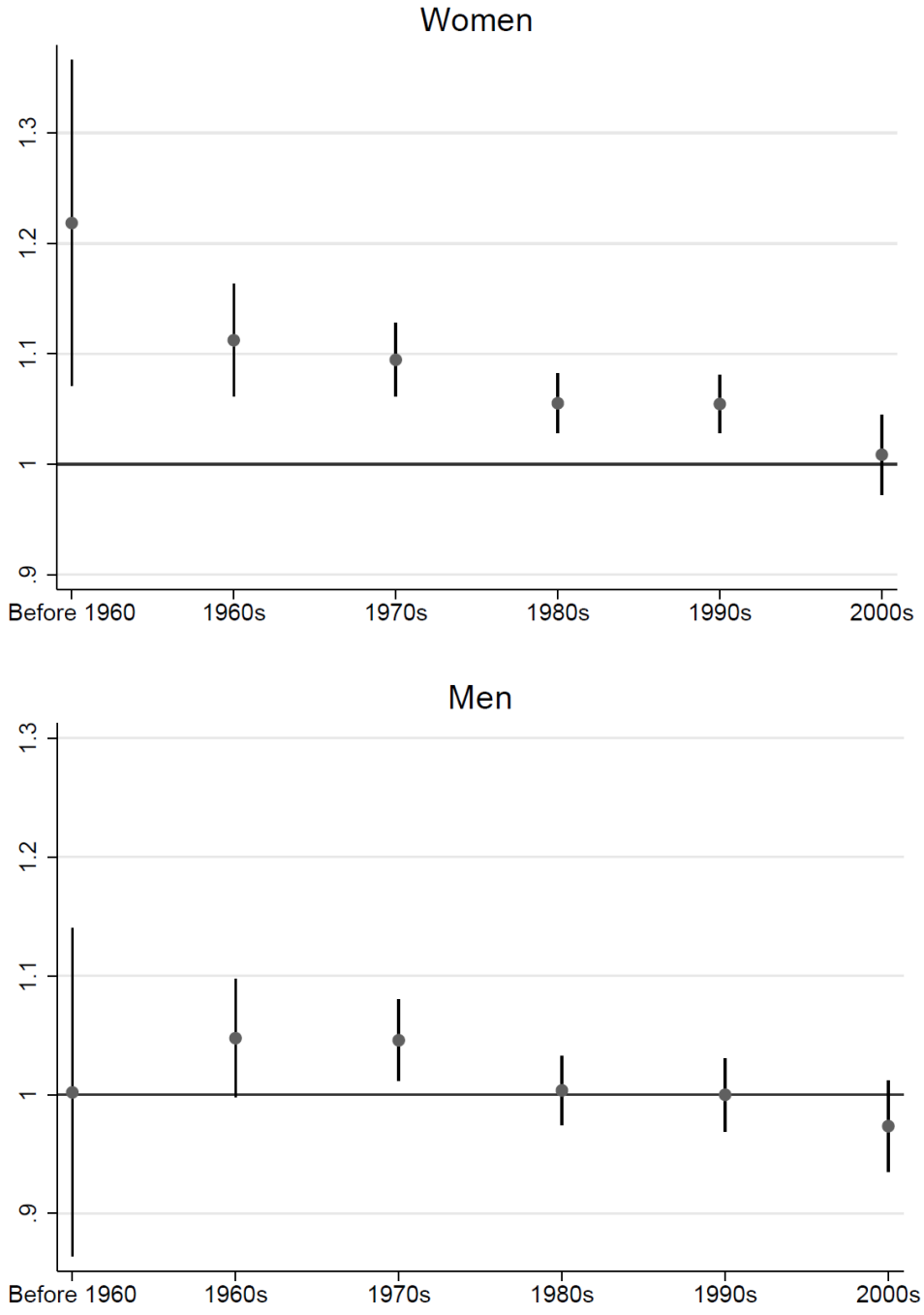


Figure 2. ***Coefficient of education by cohort and 95% confidence intervals (a= women; b=men)***

A summary of the relevance of these shifts to the overall trend in breakup behavior can be seen in Figure 3. The probability of separation for the 2000s' cohort was nearly three times higher than for the 1960s' cohort in all standardization scenarios. This points to the relatively low overall importance of individual educational attainment for partnership stability. Nevertheless, the different scenarios illustrate the relevance of changes in education-specific breakup behavior. Education played a considerable role in partnership breakup rates in the 1960s: the adjustment of the 1960s' cohort's

educational distribution to that of the 2000s' cohort is associated with an increase in its average predicted probability of breakup from .208 to .245. On the other hand, reweighting the educational distribution of the 2000s' cohort hardly changes average predictions. Since education had a moderately negative effect on separation rates in the youngest cohort, the probability of partnership breakup would even have been slightly higher than observed (.584 vs. .582) if its members had only attained the distribution of education found in the 1960s' cohort.

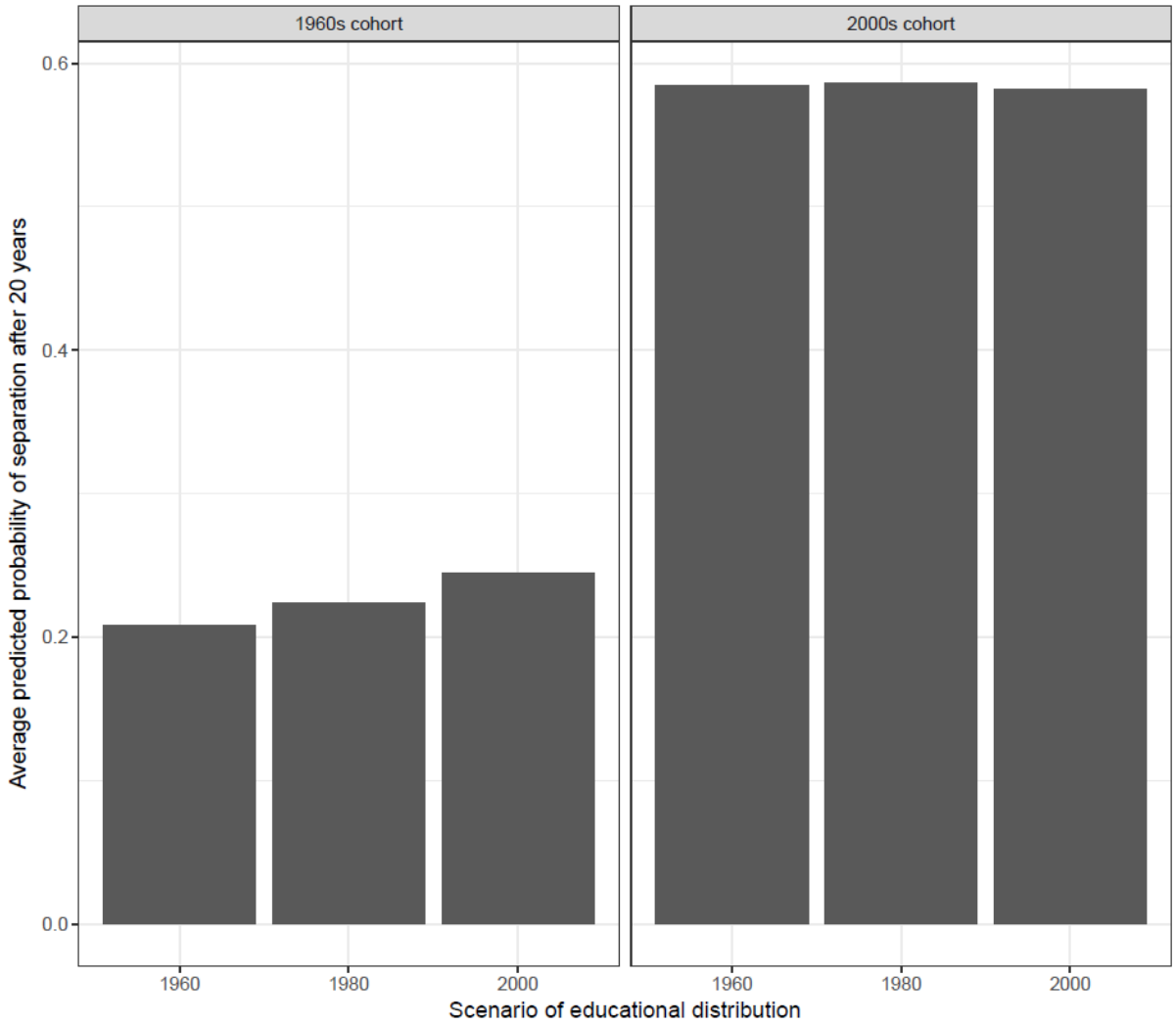


Figure 3. Predicted probability of separation by cohorts and standardization scenarios

Notes: Predicted separation probabilities based on model 2 with three-way interactions between educational categories (years of education split at 10, 11.5, 12 and 15), cohort dummies and gender. 1960s cohort – 1960 and 2000s cohort – 2000 bars display predictions calculated from observed distributions of education. Standardizations of educational distribution based on inverse probability weights calculated from a logit model of the probability of being in reference cohort vs. being in comparison cohort (1960 vs. 1980 and 2000, 2000 vs. 1980 and 1960) on interactions between gender and education (same educational categories as in model on separations).

6.7. Conclusions and relevance

In examining the impact that the expansion of men's and women's educational attainment has had on the stability of first partnerships in Switzerland the present chapter found that the overall association between educational attainment and the rate of partnership breakup was positive but moderate (H1b) and that the coefficient was significantly higher for women (H1c) who also experienced more significant increases in educational attainment. The results suggest that part of this overall positive educational gradient is explained by the greater percentage of highly educated individuals in NMC.

However, educational expansion would only be liable for the heightened instability of first partnerships if higher levels of education predicted higher rates of partnership breakup *and* if this influence remained constant throughout the entire period of educational expansion. The study's crucial finding is that partnership breakup rates would *not* lie substantially lower today if couples had remained at the much lower levels of education seen in previous cohorts. The results suggest that at the same time as individual educational attainment increased, the association between education and partnership breakup weakened, thus mitigating the effect of educational expansion. Indeed, in contradiction to previous research on women's education and divorce in Switzerland (Härkönen and Dronkers 2006), the association between educational attainment and partnership breakup changed from positive for the older cohorts to a non-significant level for the youngest cohorts (H2a).

The potential indirect effects of educational expansion on trends in partnership instability, such as how increasing educational levels may have changed partnership behavior by influencing social norms and structures (cf. Lesthaeghe and Neels 2002; Vitali et al. 2015), are beyond the purview of this chapter. The main conclusion it reaches is that as long as educational expansion is understood simply as the de facto rise in individual educational attainment, it does little to explain the drastic increase in partnership breakup rates. One of this study's contributions is thereby to affirm and strengthen the findings of previous research on the influence that increased education has had on the rise in marital dissolution (Wagner et al. 2015). Yet, its insight into the influence of the rise in NMC has (arguably) greater implications for the ongoing investigation of trends in partnership instability. If future research seeks to understand potential changes in the consistently high rates of breakup found in NMC, it will need to devote continued attention to the behavior and composition of cohabiting couples (cf. Schnor 2014).

The consequences separations have for the individuals involved is what makes trends in partnership separation particularly significant (Arránz Becker 2015). Educational differentials in partnership breakup matter because educational attainment stands for a diverse set of resources that help individuals cope with separation. This study has only *described* the trends regarding educational

differentials in partnership breakups without explicitly testing the mechanisms behind them. Nevertheless, two results can serve as an impetus for further research to more closely examine the relationship between education and partnership instability.

The first relates to the importance of the rise in NMC for separation trends. In opposition to conventional diffusion models, the greater percentage of highly educated people living in NMC has not declined during the course of NMC's proliferation. Educational differentials in NMC have even increased: among the most recent cohorts, it is the least educated who lag most strongly behind the trend towards NMC. Since pooling NMCs and marriages together rather than considering marriages alone reveals a greater instability of partnerships among more highly educated individuals, future research should examine whether the higher tendency towards cohabitation among better educated couples in Switzerland is independent of the type of NMC. Are couples with high levels of education only more likely to remain unmarried in first partnerships that overlap with educational trajectories, or does this also hold for more meaningful childbearing unions that mostly tend to form later in life (cf. Schnor and Jalovaara 2017)?

The second result concerns the reasons behind the change in the educational gradient of separation that are suggested by the separate examination of changes in the coefficients for women's and men's educational achievement. The initially higher positive gradient for women and its stronger decrease (H2b) emphasizes the relevance of gender-specific explanations (Matysiak et al. 2014). However, since the general pattern in Switzerland is comparable between genders – unlike in Italy, for instance (Salvini and Vignoli 2011) – gender-neutral explanations also seem relevant. For instance, pointing to the importance of *opportunity structures*, many studies have stressed the role played by social and cultural aspects of family change (e.g., Härkönen and Dronkers 2006). Seen from this perspective, educational gradients in partnership breakup decreased because the unhappy couples among the least educated became more likely to separate once social constraints had weakened.

I'd like to close this chapter by suggesting that future research expand its focus on the factors that determine educational differences in partnership breakup by taking into account their influence on *partnership quality* and *partnership investments* (cf. Boertien and Härkönen 2018). For instance, in the wake of educational expansion, educational homogamy mainly increased among the most educated, thereby decreasing their separation risks. To what extent was this risk reduction due to higher partnership satisfaction? An equally stabilizing role could be played by men's increasing contributions in the domestic sphere, which are likewise most widely dispersed among the most educated (Goldscheider et al. 2015; Grunow et al. 2007). Conversely, the difficult economic conditions that afflict

some segments of moderately and lowly educated groups may contribute to the share of troubled partnerships among them (Williams et al. 2015) and reduce their likeliness of marrying.

6.8. Appendix: The Influence of Educational Expansion on Partnership Stability: A Cohort Study of First Partnerships in Switzerland

Table 4. Gender-specific coefficients underlying the model for Figure 2a and Figure 2b

	a) Women	b) Men
Before 1960s: reference (1970s)	1	0.541***
	(.)	(0.0937)
1960s	1.490*	0.734***
	(0.239)	(0.0659)
1980s	2.931***	1.490***
	(0.454)	(0.111)
1990s	4.059***	2.245***
	(0.641)	(0.170)
2000s	4.890***	2.517***
	(0.811)	(0.231)
Education: 1970s	1.219**	1.046**
	(0.0755)	(0.0174)
Education * Before 1960s	1***	0.958
	(2.92e-17)	(0.0691)
Education * 1960s	0.913	1.002
	(0.0605)	(0.0294)
Education * 1980s	0.866*	0.960
	(0.0548)	(0.0214)
Education * 1990s	0.865*	0.956*
	(0.0548)	(0.0217)
Education * 2000s	0.825**	0.931**
	(0.0533)	(0.0243)
Age at formation	0.941***	0.949***
	(0.00495)	(0.00542)
Had child before formation	2.837***	3.254***

	(0.310)	(0.471)
Child during partnership (time-varying)	0.284***	0.237***
	(0.0124)	(0.0130)
Parental separation	1.581***	1.302***
	(0.0880)	(0.0921)
Constant: p0	0.0630***	0.148***
	(0.0106)	(0.0192)
Internal knot 1: p25	5.507***	5.460***
	(0.158)	(0.171)
Internal knot 2: p50	1.579***	1.621***
	(0.0351)	(0.0404)
Internal knot 3: p75	0.952***	0.944***
	(0.0124)	(0.0143)
External knot: p100	1.034***	1.037***
	(0.00771)	(0.00928)
AIC	20461.5	17912.1
N splited episodes	18844	14990
N events	4004	3077
N responents	12986	10324

7. The Consequences of Divorce for Mothers and Fathers: Unequal but Converging?

7.1. Introduction

Research into the consequences of divorce for adults in Western countries usually depicts women as experiencing larger drops in material well-being than men in the course of a marital separation (Aassve et al. 2009; Andreß et al. 2006; Andreß and Bröckel 2007; Bonnet et al. 2015; Bröckel and Andreß 2015; de Vaus et al. 2017; Leopold and Kalmijn 2016; Poortman 2000) and, on the downside, men as experiencing rather large declines in immaterial domains (Andreß and Bröckel 2007; Blekesaune 2008; Leopold and Kalmijn 2016; Næss et al. 2015). This gendered domain-specificity of divorce effects is essentially linked with the nature of the dominant *family models* underlying the studied populations. Just as the higher engagement on the labor market protects *fathers* from declines in household incomes due to separation, so does the stronger involvement of *mothers* in child rearing soften the declines in personal relationships they experience and help them to keep up well-being in immaterial domains despite loss of a partner (Andreß and Bröckel 2007; Kamp Dush 2013; Leopold and Kalmijn 2016).

Social change has led scholars to question the stability of such inequalities in the distribution of the consequences of divorce (Bröckel and Andreß 2015; H. Liu and Umberson 2008). On the forefront of their claims stands the notion of the "gender revolution" (Goldscheider et al. 2015): the hypothesis that gender roles have converged. If mothers have increased their labor market participation and fathers their engagement in care and housework, the core drivers of the domain-specificity of divorce effects for mothers and fathers are weakening. While recent cohort comparisons in the US suggest decreasingly gendered economic and health consequences of divorce (H. Liu and Umberson 2008; Tach and Eads 2015; Tamborini et al. 2015), Bröckel and Andreß (2015) for Germany and Le Bourdais and colleagues (2016) for Canada conclude on stable economic declines for divorcing mothers. This study takes a multidimensional perspective to examine whether in Switzerland, there are *gendered patterns in the consequences of divorce for parents' economic and emotional well-being and whether or not these patterns were stable across cohorts of divorcees*.

For the relatively rigid traditional gender regime in Switzerland, I see arguments that challenge both the idea of a maternal advantage in the immaterial consequences of divorce and the idea of change in the economic consequences of divorce for mothers and fathers. Given the ongoing low levels of institutional support of maternal employment, increases in mothers' employment were largely

restricted to part-time work (Liechti 2014). Hence, mothers' economic independence has risen only moderately. Also, it is far from clear that the emotional strain associated with their dual role of being the main earner and caregiver is less pronounced than divorcing fathers' negative emotional experiences, nor that it has lowered between cohorts (cf. Struffolino et al. 2016). Further, changes in maintenance law with the divorce law reform of 2000 were paralleled by sharp declines in the number of divorced mothers that receive spousal support payments (Büchler and Cottier 2012, p. 194)[11]. This is most likely to have worsened divorced mothers' economic well-being. Also: Switzerland is a laggard in terms of shared child custody. Much later than in most other Western countries -only in 2000- has shared *legal* custody become a legal option. Likewise, figures presented in this study do not suggest substantive declines in gender differences in *physical* custody over the past decades, suggesting that one of the main mechanisms underlying fathers' negative emotional consequences from divorce has remained stable over time.

In sum, for Switzerland, it is of specific interest whether the consequences of divorce have changed between divorce cohorts that separated before the turn of the millennium – i.e. under the old divorce law regime - and divorce cohorts that separated after the turn of the millennium and the introduction of the new divorce law. Because the Swiss Household Panel (SHP) – the usual database for inquiries into the consequences of divorce in Switzerland (Kalmijn 2017; Masia 2016) - was launched only in 1999, this study must rely on a cross-sectional data strategy. I use a conglomerate of five national random sample surveys that were collected between 1994 and 2013 and that included questions on income and emotional well-being as well as on partnership histories. This allows me to ask: *do recently divorced mothers in Switzerland report a) greater disadvantage over continuously married in terms of economic well-being than recently divorced fathers and b) smaller disadvantages in terms of emotional well-being and c) has this pattern of gender differences in divorced parents' disadvantages over continuously married remained stable between divorce cohorts?*

In a first part of the chapter, I outline the theoretical arguments underlying the expectation of gender differences in the consequences of divorce for parents' economic and emotional well-being. I then describe the relevant developments with respect to divorcees' composition and the institutional environment and derive expectations on stability and change in gender differences in the consequences of divorce for Swiss parents. In the empirical part, I present the dataset, the measurement of the main variables and the analytical strategy. The presentation of the main results is followed by several robustness checks. This helps to evaluate concerns that can be raised about the validity of the data strategy underlying the main results. On this backdrop, the last section judges the

[11] See chapter 4.

hypotheses, provides answers to the research questions and derives conclusions for policy making, as well as future research into the subject.

7.2. Theory and hypotheses

7.2.1. Differences in the consequences of divorce for mothers and fathers

The main determinant of the extent to which mothers and fathers experience divorce differently is the way couples divide tasks before and after separation (Leopold 2016; Leopold and Kalmijn 2016). In a marital context where women take the bulk of unpaid care- and housework and men invest in work careers, there are several factors that put mothers at a higher risk of a decline in economic well-being than fathers (Andreß et al. 2006). First, they are more likely to cohabit with their children and have primary economic responsibility for them. If this holds, then mothers are disadvantaged on the level of material needs. Second, in consequence of such an unequal work divide, mothers often have lower earnings than fathers in the moment of separation. Divorced mothers must also simultaneously deal with several factors that hinder them in expanding their own earnings. Due to their mostly fragmented work careers after parenthood and the corresponding lower levels of human capital, they often have restricted labor market opportunities (Pedulla 2016). In addition, depending on the accessibility of external child care arrangements, there may be time restrictions that limit the degree to which they are *able* to expand their employment (van Damme et al. 2009). In sum, *I hypothesize that recently divorced mothers have a greater disadvantage in economic well-being in comparison to their continuously married counterparts than recently divorced fathers (H1)*.

Differences between divorced mothers' and fathers' disadvantages in emotional well-being are less clear cut. On one hand, following Amato's (2000) divorce-stress-adjustment model, it can be argued that economic difficulties spill-over to other domains of life. Divorced mothers' low financial resources might heighten and prolong the negative emotional experiences of marital separations (Wang and Amato 2000) with negative repercussions on their mental or physical health (Dahl et al. 2015; R. Liu and Chen 2006). Divorced mothers might also be disproportionately affected in their emotional well-being by the stressful condition of a simultaneous management of child care duties and employment (Struffolino et al. 2016; van der Heijden et al. 2016). Also, the presence of children makes re-partnering more difficult (Schnor et al. 2017). Because mothers have their biological children residing with them more often, they may thus less easily cope with separation by re-partnering.

On the other hand, there are reasons to expect that fathers would face particularly steep drops in emotional well-being due to divorce. First, men are less likely to initiate divorces than women (Kalmijn and Poortman 2006). This can be related to gender differences in the timing of emotional strain. While mothers suffer more from the low quality of the marital relationship and thus more actively initiate

the separation, fathers might be more surprised by the break-up and therefore suffer more strongly in the immediate aftermath of a divorce (Andreß and Bröckel 2007; Blekesaune 2008; Kalmijn 2017; Leopold and Kalmijn 2016). The second reason refers to the resource model of marriage (Waite and Gallagher 2001). There is evidence that men particularly benefit from spousal control and social support (Bernard 1982; Næss et al. 2015). If this view holds, then fathers should also experience higher losses of health-related resources when becoming single again. Thirdly, child-parent relationships can be significant with respect to the gender disparities concerning the psychological consequences of divorce (Yuan 2016). While they cause financial strain, custodial children could also be a source of parents' emotional well-being. Because fathers less often have their children cohabiting with them after divorce, family break-ups cause much more of a break in parent-child relations for fathers than for mothers (Graaf and Fokkema 2007; Grätz 2017), which spills over to their emotional well-being (Yuan 2016).

There is decreasing divergence over the fact that men – especially young men and fathers – tend to experience stronger divorce-related drops in life satisfaction than women (Andreß and Bröckel 2007; Kalmijn 2017; Leopold 2016; Leopold and Kalmijn 2016). Studies into mental health, however, are yet to agree over such a male disadvantage. Whereas some results suggest stronger increases in mental distress and sickness leave experienced by men than by women (Blekesaune 2008; Blekesaune and Barrett 2005; Kamp Dush 2013; H. Liu and Umberson 2008), others emphasize that mothers' sickness absence and depression is more severely affected by union dissolution (Dahl et al. 2015; Kalmijn and Monden 2006; Monden et al. 2015; Williams and Dunne-Bryant 2006).

The mechanisms that make divorce a particularly stressful experience for mothers – i.e. work-family strain - are pronounced in contexts of only limited state-support for external child care. Therefore, for Switzerland, *I expect that both, divorced mothers and divorced fathers have significantly lower emotional well-being than continuously married parents and that these differences do not differ between genders (H2)*.

7.2.2. Decreasing gender differences?

Have mothers' and fathers' consequences of divorce converged? As the main source of gender differences are unequal roles within marriage, the answer to this question lies in the extent to which family models have changed. The *gender revolution hypothesis* (Goldscheider et al. 2015) essentially argues that, at least in some countries and certain social groups, fathers' and mothers' roles have become more egalitarian: in one part with respect to the public sphere – i.e. paid employment – and, in another, with respect to the private sphere – i.e. unpaid care and housework.

Marriage and parenthood now causes fewer women to retreat from the labor market and to undergo decreases in earnings (Juhn and McCue 2016). Hence, given mothers' higher average financial contributions to the household, the loss of their partner's resources with the divorce may not mark the same turning point for their economic well-being as it used to. Fathers, on the other hand, might be more strongly affected in their material well-being by a divorce, because they have come to lose greater shares of their pre-disruption household incomes in case of separation. So far, there are no studies investigating the development of divorced men's economic well-being. Yet, data from USA and UK suggest that more recent cohorts of divorced women suffered less dramatic reductions in their household incomes (Jenkins 2008; Tach and Eads 2015), which is in line with the evidenced historical decreases in economic hardship experienced by divorced mothers (McKeever and Wolfinger 2006). Also, the factors that have contributed to married mothers' integration into the labor market are consequential for mothers' ability to react to a divorce. For instance, in contexts where external child care provision is more readily accessible, even mothers that exit from traditional breadwinner marriages are more able to expand their employment and earnings after separation (van Damme et al. 2009; van Damme and Kalmijn 2014). Another source of improvements in divorced mothers' economic well-being could stem from increases in income-targeted social policies, specifically aimed to reduce the poverty risks associated with divorce by parents (Baumgartner et al. 2014; Kohler et al. 2012).

Developments in gender differences in divorced parents' disadvantage in emotional well-being depend upon the relative importance of change in factors that make divorce more wearing for mothers (e.g. work-family conflict) versus change in the factors that make divorce more wearing for fathers (e.g. parent-child relationship). In contexts where divorced mothers are relatively well protected from work-family strain (e.g. due to the availability of affordable external child care), increasingly egalitarian divisions of labor can be expected to have particularly benefited divorced fathers' well-being. First, more egalitarian divisions of labor make marriage a less important driver of male health gains (Bernard, 1982). If men gain fewer health related resources from marriage, they also lose less in terms of health resources with the divorce. In line with a decreasing male disadvantage in the health penalty from divorce, Liu and Umberson (2008) have shown that the health disadvantage of divorced over married individuals have increased more for women than for men between the 1970s and the 2000s. Second, changes in mothers' employment and fathers' involvement in child-rearing might be particularly beneficial for fathers' well-being in terms of how child custody is allocated after divorce. This argument is supported by evidence showing that mothers' employment after divorce is linked to more frequent and better-quality father-child relationships (Kalmijn 2015) and that child relationships are crucial for fathers' emotional well-being (Yuan 2016). At the same time, mothers' relationships with their children might suffer more from divorce. In summary, while divorce has traditionally led mothers to experience

steep drops in economic well-being and fathers to suffer more emotionally from a divorce, together, these arguments suggest that gender differences have lowered when mothers increased their labor market participation and fathers their engagement in care and housework.

For the context of Switzerland, however, I see three arguments that contradict this change hypothesis. First, given the ongoing low institutional support for maternal employment, mothers' entry into the labor market was largely restricted to part-time work (cf. changes in activity level in Table 658) (Liechti 2014). Hence, mothers' economic independence has increased only moderately, while emotional strain from work family-conflict might not have lowered either (Struffolino et al. 2016). Second, Swiss maintenance law practice has seen a paradigm shift towards "clean breaks" (Büchler and Cottier 2012, p. 194). Under this new regime, ex-partners should become economically independent from each other as soon as possible after divorce. This has led to a sharp decline in the share of divorces in which support payments are agreed upon in legal decrees. While in 1995, 69% of divorce decrees foresaw that fathers of minor children paid support payments to their ex-wives, this share has sunken to 45% after the introduction of the new divorce law in 2000 (BFS (Federal Statistical Office) 2018a own calculations). Third, although the introduction of shared legal custody in 2000 has led to more equal divisions of legal responsibilities between divorced parents, physical custody has remained largely on the side of mothers (see Table 6, row "Cohabiting child < 16"). This suggests that the hypothesized improvements in father-child relationships have not yet taken place. In sum, I expect that *in both cohorts, divorced mothers show greater disadvantage in economic well-being over continuously married than divorced fathers and that there are no gender differences in divorced parents' disadvantage in emotional well-being over continuously married (H3)*. A conclusion of stable gender differences has recently been drawn for the relatively similar context of Germany. German mothers' probability of income loss due to separation has even increased (Bröckel and Andreß 2015).

7.3. Data, methods and potential sources of bias

7.3.1. Data strategy

In the words of the Rubin Causal Model (Imbens and Rubin 2015) the consequences of divorce refers to the difference between divorcees' ($D = 1$) observed expected level of the outcome of interest $E[Y_1|D = 1]$ and a counterfactual situation if divorcees had remained married, $E[Y_0|D = 1]$. Conventional studies into the consequences of divorce identify $E[Y_0|D = 1]$ with individuals' situation prior to the divorce and $E[Y_1|D = 1]$ with the situation after the divorce.

Due to the need of observations of divorcees that divorced prior to 2000, this study cannot make use of the longitudinal data structure of the Swiss Household Panel, which would allow for such a research design but was launched only in 1999 (cf. Kalmijn 2017). Instead, my analyses draw on a synthetic

dataset based on five cross-sectional national random sample surveys with information on economic and emotional well-being and retrospective partnership histories. The Family and Fertility Survey (henceforth FFS, surveyed in 1994/1995), the Swiss Labor Market Survey (SLMS, 1998) and the first wave of the Swiss Household Panel (SHPI, 1999) represent the cohort of divorcees that divorced in the 1990ies. The 14th wave of the Swiss Household Panel (SHPIII[12], 2013) and the Inquiry on Families and Generations (EFG, 2013) provide data on a cohort of divorcees that divorced between 2009 and 2013 (BFS (Federal Statistical Office) 2018b; Diekmann et al. 1998; FORS 2015; Voorpostel et al. 2016). Due to the cross-sectional nature of the data at hand, the average situation of continuously married ($\mathrm{D} = 0$) individuals $\mathrm{E}[\mathrm{Y}_0|\mathrm{D} = 0]$ is taken as a proxy for $\mathrm{E}[\mathrm{Y}_0|\mathrm{D} = 1]$ and compared to divorcees who are observed just after their divorce, which is this study's $\mathrm{E}[\mathrm{Y}_1|\mathrm{D} = 1]$. Hence, in this study, I use continuously married parents as *counterfactuals*: their observed well-being is taken as an approximation of divorcees' well-being in a situation in which they had not divorced.

7.3.2. Sample and measures

I define divorce by parents as the *divorce of a first marriage when the divorcee reported to have at least one biological child below 18 years of age in the year of separation*. Given the age restriction in the FFS, my sample is limited to subjects aged 49 and younger. Longitudinal studies into the consequences of divorce suggest that average divorcees approach pre-divorce levels of life satisfaction after about 3 to 5 years (Kalmijn 2017; Leopold and Kalmijn 2016). To capture the consequences of divorce, I constrain my sample to divorcees surveyed 0 to 4 years after the household separation. After deletion of cases with missing information on central variables[13], the remaining analytical pooled sample consists of 480 recent first-marriage divorcees[14] (254 divorced in the 1990ies, 226 divorced between 2009 and 2013). The counterfactual group is made up of a total of 7,224 respondents below age 50 who have children and were married in their first marriage at the time they were surveyed.

Divorcees' *economic well-being* is examined with household size equivalized household income (after social security deductions and before paid taxes). Following recent studies into the economic consequences of divorce (cf. Bröckel and Andreß 2015; de Vaus et al. 2017; Tach and Eads 2015) need-adjustment was performed by dividing the total household income by the number of household members to the power of .5, which assumes moderate economies of scale. Participants in the FFS only reported categorical information on household income (monthly CHF 0-2000, 2001-3000, 3001-4000, 4001-5000, 5001-6000, 6001-8000, 8001-10000, above 10000). I took the category middle as the actual

[12] I use SHP III instead of SHP II because the data are based on the third sample of the SHP. SHP II was sampled in 2004.
[13] Birthyear, year of marriage, education, parental separation, number and age of children
[14] Surveys are distributed as follows: EFG: 35%; FFS: 30%; SHP: 26%, SLMS 9%.

value (1000 for category 0-2000, 2500 for category 2001-3000, aso. and 12000 for above 10000) and, for reasons of comparability between surveys, recoded income information from all other surveys into such categories. In all surveys taken together, the variable has 18% missing values. Due to only limited information for income imputation across surveys, these cases were deleted list wise. All incomes are adjusted to purchasing power levels in 1994 to account for changes in price levels and wages between cohorts.

Following the approach chosen by other studies into the emotional effects of marital separation (cf. Kalmijn 2017), emotional well-being is measured with self-reported measures. The lowest value (0) either indicate that the respondent is "completely unhappy" (FFS), "never feels happy" (EFG) or experiences continual "Depression, blues, anxiety" (SHP). The highest value (5) indicate that the respondent is "fully happy" (FFS), "always feels happy" (EFG) or never experiences "Depression, blues, anxiety" (SHP). The SLMS did not include any measure of emotional well-being. The pooled sample has missing information in 23% of the cases, which were deleted list wise.

For the construction of the counterfactual samples (see next section), the analyses make use of information on *the age of the respondent at the survey, the year of entry into cohabitation with the spouse, the number of children below age 7 and the number of children aged 7 and older, whether the respondent has experienced a parental separation him- or herself and his or her educational attainment*. Education is measured by years of schooling according to a 1997 scale of equivalence (Jann and Engelhardt 2008). The selection of control covariates is based on the criterion of achieving a maximum resemblance between the divorced and married in the observed dimensions that jointly determine the probability of divorce and their economic and emotional well-being.

7.3.3. Methodology

The quantities of interest to this study are well-being differences between divorcees and counterfactuals and gender differences in divorcee-counterfactual differences. I estimate these quantities with cohort-specific OLS models that include dummy variables indicating whether an individual is a divorcee or a counterfactual and with interaction terms capturing gender differences in the coefficient of the dummy variable. To increase comparability across cohorts, I use logarithmized dependent variables. The reported exponentiated beta coefficients of dummy variables thus express proportional differences between divorcees and counterfactuals (1 means no deviation, values below 1 smaller values for divorcees) and interaction terms the proportion of dummy coefficients between genders (1 means no gender differences, values below 1 a smaller coefficient for mothers).

Before running the models, I preprocess the data for two purposes. First, I use entropy balancing (Hainmueller 2012) to calculate weights[15] that, for both cohorts of divorcees reweights counterfactuals such that they have covariate distributions of divorcees[16]. Table 5 indicates that compared to divorcees, continuously married have a greater number of pre-school aged children and among them, a smaller share of individuals has themselves experienced a separation of their parents (especially in the later cohort). However, when entropy-balancing generated weights are applied, the two samples have nearly identical means and variances in all covariates. Hence, when weights are applied, estimates on divorcee-counterfactual differences either express causal effects of divorce for the divorced or unobserved differences between divorcees and counterfactuals (see section "Robustness checks").

[15] Divorcees' distributions are estimated using survey weights, which are scaled on each survey's sample size such that observations from smaller surveys have greater weight.

[16] To preclude the possibility that the observations of divorcees come from different surveys than observations of counterfactuals and that such differences in the representation of different surveys between divorcees and counterfactuals differs between genders, I specify the balance constraint such that gender specific proportions of surveys are identical between divorcees and counterfactuals (not reported in Table 1).

Table 5. Characteristics of divorcees and counterfactuals, using survey weights and entropy balancing generated weights

	Divorce cohort: 1990s					
	Divorcees, survey weights		**Counterfactuals, survey weights**		**Counterfactuals, entropy balance weights**	
	mean	variance	mean	variance	mean	variance
Age	37.67	32.94	38.22	42.13	37.67	32.94
Year of formation	83.92	40.32	83.64	60.10	83.91	40.32
Nr. of children < 7	0.55	0.75	0.85	0.96	0.55	0.75
Nr. of children >6	1.58	1.26	1.40	1.50	1.58	1.26
Proportion with parental separation	0.11	0.10	0.08	0.07	0.11	0.10
Education, years	11.64	6.08	11.59	5.66	11.64	6.08

	Divorce cohort: 2009-2013					
	Divorcees, survey weights		**Counterfactuals, survey weights**		**Counterfactuals, entropy balance weights**	
	mean	variance	mean	variance	mean	variance
Age	40.00	29.41	40.11	39.39	40.00	29.42
Year of formation	99.93	30.96	101.00	49.71	99.94	30.96
Nr. of children < 7	0.46	0.39	0.80	0.74	0.46	0.39
Nr. of children >6	1.44	0.85	1.22	1.30	1.44	0.86
Proportion with parental separation	0.24	0.18	0.14	0.12	0.24	0.18
Education, years	12.42	9.60	12.61	9.45	12.42	9.60

Second, I use sample preprocessing to increase comparability between cohorts. My theoretical arguments suggest that change in gender differences in the effects of divorce for parents is driven by potential changes in mothers' labor market participation and in the allocation of child custody. However, observed cohort differences in divorcee-counterfactual differences could as well result from a lowered number of children given declines in fertility and increases in ages at divorce (Brown and Lin 2012) and changed levels of repartnering after separation due to an increased availability of single individuals (Becker and Jann 2017). To link observed changes in divorce-counterfactual differences to

changes in employment and custody as closely as possible, changes in divorcees' composition must be held constant. Therefore, I report additional estimates based on divorcee samples, for which I, prior to balancing with counterfactuals, adjusted the composition between the two cohorts. I use entropy balancing generated weights that adjust the recent cohorts' gender-specific distributions of age, marital duration, number of children, partner cohabitation, education and the experience of parental separation to match the distribution of the older cohort but allow the two cohorts to differ in employment and cohabiting children.

Table 6 gives an overview of the characteristics and sample sizes of divorced parents in the two cohorts. As expected, employment rates for mothers are significantly greater among the recent cohort. Also, mothers' have significantly greater levels of educational attainment in the recent cohort (more years of schooling). Contrary to expectations, in the recent cohort, significantly fewer divorced mothers are cohabiting with a partner than in the older cohort. Under usage of entropy balance generate weights, all compositional differences are eliminated. Note that because employment and child custody were excluded from the balancing constraint, cohort differences in employment and child custody are nearly identical for the original and composition-adjusted estimates.

Table 6. Sample description by gender and cohort

	Divorce cohort: 1990ies		Divorce cohort: 2009-2013		Divorce cohort: 2009 to 2013 at 1990s composition	
	Mothers	**Fathers**	**Mothers**	**Fathers**	**Mothers**	**Fathers**
Age, avg.	38**	38***	39	41	38	38
Marital duration, avg.	11	10	11	10	11	10
Years of schooling, avg.	11***	12	13	12	11	12
Parental separation, %	12***	10**	24	25	12	10
Employed, %	62***	96	81	94	78	97
level of employment (if employed), avg.	68	91	63	94	59	96
Partner, cohabiting, %	31***	30	18	30	31	30
Number of children < 7, avg.	0.49	0.62	0.4	0.57	0.49	0.62
Number of children >= 7, avg.	1.64	1.49	1.5	1.32	1.64	1.49
Cohabiting child < 18, %	90**	29	81	30	80	30
Income (eqiv.), avg., monthly CHF	3172	5024	3075	4970	2900	5029
Happiness, avg.	3.9***	4.01**	3.61	3.58	3.51	3.78
N	170	84	150	76	150	76

Notes: Tests of statistical significance refer to within gender differences between unadjusted cohort means (first versus second column). *p<0.1;**p<0.05;***p<0.01. Divorcees below age 50, 0 to 4 years after household separation. Level of employment: 100% equals 42 hours per week.

7.4. Main results

Table 7 presents the estimates of divorcee-counterfactual differences for the cohort of divorcees that divorced in the 1990ies and the cohort of divorcees that divorced between 2009 and 2013. Among the 1990s cohort, there are clear gender differences in household income. Divorced mothers report 19 percent lower incomes (p<.001) than their counterfactuals and fathers report 24 percent higher incomes than their counterfactuals (p<.01), which is a statistically significant gender difference in coefficients (p<.001). In terms of emotional well-being, both, mothers and fathers report significantly (p<.05) lower levels (8% and 11%) of happiness than their counterfactuals and there are no significant gender differences in coefficients.

Table 7. Unadjusted and adjusted estimates of divorcee-counterfactual differences from cohort comparisons

		Divorce cohort: 1990s		
		Mothers	**Fathers**	**Gender interaction**
Equivalized household income	**Beta**	0.809***	1.244***	1.539***
	se	(0.0480)	(0.0776)	(0.133)
Happiness/reversed depression	**Beta**	0.914*	0.894*	0.979
	se	(0.0343)	(0.0424)	(0.0587)
		Divorce cohort: 2009 to 2013		
Equivalized household income	**Beta**	0.705***	1.097	1.557***
	se	(0.0415)	(0.0856)	(0.151)
Happiness/reversed depression	**Beta**	0.949+	0.935+	0.984
	se	(0.0270)	(0.0378)	(0.0478)
		Divorce cohort: 2009 to 2013 at 1990s composition		
Equivalized household income	**Beta**	0.718***	1.264**	1.762***
	se	(0.0511)	(0.0934)	(0.182)
Happiness/reversed depression	**Beta**	0.921*	1.041	1.131*
	se	(0.0344)	(0.0396)	(0.0611)

Notes: Reported are exponentiated beta coefficients of main effects and interaction terms (standard errors in parentheses) from OLS models with logarithmized dependent variables. Main coefficients express the factors by which divorcees deviate from counterfactuals, gender interactions the ratio of these factors between fathers and mothers (1 means no difference to counterfactuals/no gender difference). All estimates based on subsample of divorcees with age < 50 and observed 0 to 4 years after marital separation. + p<.10; * p<0.05; ** p<0.01; *** p<0.001. Table created using esttab (Jann 2007). Source: see section "Data, methods and potential sources of bias".

The pattern of gender differences in coefficients is identical for the recent cohort. Mothers report lower equivalized household incomes than their counterfactuals. For fathers, the reverse holds: just like in the 1990s cohort, their differences to counterfactuals are 1.5 times more positive (p<.001) than for mothers. With respect to divorcee-counterfactual differences in emotional well-being, similarly to

the 1990s cohort, there are no statistically significant gender differences. However, divorcee-counterfactual differences only reach a 10%-level of statistical significance[17].

Under a hypothetical scenario that divorcees had not changed their distributions of age, marital duration, number of children, partner cohabitation, education and the experience of parental separation between cohorts, estimates would differ qualitatively from estimates for the observed sample of the recent cohort. For both, economic and emotional well-being, composition adjustment leads to more favorable outcomes for divorced fathers when compared to their counterfactuals (significantly higher income than counterfactuals, no significant difference in emotional well-being). Contrarily, for mothers, divorcee-counterfactual differences would remain largely unchanged in terms of economic well-being (at around 30 percentage points), but would become more negative for emotional well-being. In the composition-adjusted sample of the later cohort, gender differences in divorcee-counterfactual differences in emotional well-being are statistically significant ($p<.05$).

In sum, the results support my hypotheses. In both cohorts, mothers are economically less well-off than counterfactuals and divorced fathers do not have lower need-adjusted incomes than their counterfactuals. Also, divorcees' emotional well-being is lower than their counterfactual well-being and this disadvantage is similar for mothers and fathers in both cohorts. Yet, the stability in gender differences in divorcee-counterfactual differences in emotional well-being was due to changes in divorcees' composition. These have benefitted divorced mothers' relative emotional well-being when compared to their counterfactuals but had the reverse implication for fathers.

7.5. Robustness checks

Two types of bias potentially affect the study's conclusions and require robustness checks. The first concern refers to my measures of economic and emotional well-being. Most importantly, due to restrictions imposed by the FFS and SLMS, I use a household income measure that is reported before deduction of paid monetary and in-kind private transfers (e.g. child support) and taxes. Several studies have pointed to the fact that when using post-tax and post-transfer income measures (Bröckel and Andreß 2015; DiPrete and McManus 2000; McManus and DiPrete 2001) or assess economic well-being directly with indicators of life-style deprivation (Aassve et al. 2007), men are found to suffer more economically from divorce.

In order to assess the extent to which my conclusions depend on the measure of economic well-being, I repeat the analyses for the subsample of respondents from the IFG who provided more detailed

[17] The coefficients are statistically significant at $p<.05$ when using OLS adjustment of covariates instead of entropy balancing.

information on their financial situation. Table 8 (see appendix) compares the estimates for different indicators of economic well-being. The comparison shows that while alimony payments reduce gender differences in divorcee-counterfactual differences in gross equivalized household income, they do not fully eliminate them. Accounting for paid support payments reduces gender differences by about a third.

Other equalizing mechanisms such as in-kind transfers or a differential tax burden for mothers and fathers could further reduce the gender gap in divorcees' economic well-being. Correspondingly, I find that when divorce outcomes are measured with subjective accounts on overall financial well-being (last column in Table 8, appendix) gender differences in divorcee-counterfactual differences become statistically insignificant. However, I cannot judge whether this finding is due to objective equalizing mechanisms other than private support payments (e.g. paid taxes) or whether it is due to differences in the way mothers and fathers evaluate their financial situation. Hence, although the measure used in this study certainly leads to an overestimation of fathers' economic well-being, it rightly suggests that losses in pre-tax incomes are larger for mothers than for fathers.

Conclusions on emotional well-being could be affected by differences in measurement across surveys (see section "Sample and measures"). Therefore, in Table 9 (appendix) I report survey-specific estimates of divorcee-counterfactual differences and gender interactions. Indeed, the results show that in the FFS and in the EFG continuously married fathers tend to report worse levels of emotional well-being as compared to continuously married mothers. Contrarily, divorcee-counterfactual differences are greater for fathers than for mothers in the data from these surveys. In both samples of the SHP, I find an inversed pattern of greater emotional well-being for married fathers and a greater disadvantage for divorced fathers. Hence, results on gender differences in the consequences of divorce could depend on whether one uses a positively poled measure (such as "Happiness", as in the FFS and in the EFG) or a negatively poled measure of emotional well-being (such as "Depression, Blues, and Anxiety"). Still, such differences have a limited influence on the judgment of my hypotheses because a) gender differences are not statistically significant with either kind of measurement and b) because I include information from both kinds of measures in both cohorts.

A second type of concern is related to the cross-sectional nature of the data. There is ample evidence that individuals in adverse financial situations as well as health conditions are at a heightened risk of separation (Carr and Springer 2010; Conger et al. 2010; McLanahan et al. 2013). Therefore, despite the use of balancing weights, divorcee-counterfactual differences not only reflect the causal effects of divorce, but also the differences that pre-dated separation. The estimates in the main analysis could

thus overestimate the causal effect of divorce. Yet, divorcees' selectivity is only relevant for my hypotheses if it varies between genders (H1 and H2), or between genders and divorce cohorts (H3).

Because fathers and mothers are drawn from the same population, selectivity *cannot* differ between genders with respect to equivalized household income. However, existing research suggests that the influence of physical health on divorce differs between genders (Karraker and Latham 2015). To assess the extent to which my results are affected by problems of unobserved selectivity, I compare entropy-balancing weighted OLS with individual fixed-effects OLS coefficients. The latter are based on the longitudinal data structure of the SHP (1999-2016). For the fixed-effects estimates, the counterfactual situation is individuals' level of well-being prior to the separation (see above). Unobserved but constant differences between divorcees and continuously married thus do not bias the results (cf. Brüderl and Ludwig 2015). In order to reduce problems of comparability of measurements, I restrict all analyses to data from the SHP.

The comparison of coefficients (Table 10, appendix) shows that claims of an overestimation of the causal effect of divorce in the main analysis are unjustified. Fixed effects estimates of the effect of divorce are stronger in magnitude than weighted cross-sectional estimates. Also, fixed effect coefficients confirm the qualitative pattern found in the main analysis. Marital separation leads to a significant decrease in emotional well-being (here measured with an increase in "Depression, Blues, Anxiety"), which does not differ significantly in magnitude between mothers and fathers. In terms of economic well-being, marital separation strongly reduces mothers' gross equivalized household incomes and the coefficient for fathers is statistically significantly more positive. Furthermore, as found for cross-sectional estimates, transfers to other households (capturing spousal and child support payments) reduce such gender differences by about a third.

7.6. Discussion of results and conclusions

This study was motivated by research stating that whereas mothers suffer more in economic realms from divorce, fathers pay greater immaterial tolls when they separate from their spouse (Andreß and Bröckel 2007; Leopold and Kalmijn 2016) and by expectations that such gender differences should become lower when parents adhere to more egalitarian family models (Bröckel and Andreß 2015; H. Liu and Umberson 2008; Tach and Eads 2015). It asked whether a) *recently divorced mothers in Switzerland report greater disadvantage over continuously married in terms of economic well-being than recently divorced fathers, b) whether they report smaller disadvantages in terms of emotional well-being and c) whether or not this pattern of gender differences in divorced parents' disadvantages over continuously married remained stable between divorce cohorts.* Because in a context of low state funding of external childcare, simultaneously fulfilling the role of the main earner and care provider

can be stressful, I did not expect Swiss mothers to suffer less emotional strain from a divorce than fathers (Struffolino et al. 2016). Also, the ongoing low levels of institutional support for maternal employment and earnings, low rates of paternal physical custody and decreasing spousal support with the revision of divorce law in 2000 led me to expect stability in the consequences of divorce for parents.

The results obtained in this study support these hypotheses. First, gender differences in the consequences of divorce for parents' need-adjusted household incomes are stable across cohorts. Mothers report significantly lower incomes than continuously married in both cohorts, which cannot be observed for fathers. Second, the results suggest that, indeed, divorced mothers and fathers report similarly lower levels of emotional well-being when compared to their continuously married counterparts. This pattern holds for parents who were surveyed after a recent divorce in the 1990s as well as for parents who were surveyed after a recent divorce in 2013.

Due to a lack of longitudinal Swiss data for the study of historical changes in the consequences of divorce, this study had to draw on a synthetic dataset based on five cross-sectional surveys. This has raised two methodological concerns: a) the requirement of harmonized data limited the quality of well-being indicators and b) the cross-sectional data structure is prone to unobserved selection. Indeed, robustness checks suggested that measuring economic well-being with equivalized household income prior to paid transfers as I did in the main analysis leads to an underestimation of the economic consequences of divorce for fathers. This is in line with conclusions drawn in earlier studies (Aassve et al. 2007; Bröckel and Andreß 2015; McManus and DiPrete 2001). Yet, because transfer payments do not fully eliminate gender differences in the economic consequences of divorce, I conclude that my hypothesis tests were qualitatively unaffected by the negligence of paid support payments in the indicator of economic well-being. Furthermore, fixed effects estimates based on the longitudinal data structure of the SHP confirmed the absence of gender differences in the effects of divorce on emotional well-being. Also, concerns about an overestimation of the effects of divorce with cross-sectional data as suggested by negative health (Carr and Springer 2010) and income (Conger et al. 2010) selection into divorce are unjustified. In sum, cross-sectional estimates of the effects of divorce based on a balanced comparison of recent divorcees and continuously married did not lead to conclusions that qualitatively diverge from longitudinal analyses.

All in all, the study gives confident evidence to conclude that despite increases in divorced mothers' labor market participation of around 20 percentage points within less than 20 years (cf. Table 6), divorce still poses a substantial risk to mothers' economic well-being. The persistence of a strong economic impact of divorce for mothers despite greater labor market participation cannot be explained with a changed composition of divorcees. Rather, it must thus be attributed either a) to the

rise in lowly paid part-time work among mothers or b) to the decline in spousal support payments that coincided with the revision of divorce law. Fathers' subjective accounts point to substantial financial strain after divorce. Therefore, rather than policies seeking to reinforce support payments which further increase economic pressure on fathers, this study encourages ongoing efforts that are targeted at increasing married mothers' earnings. However, mere increases in employment at persistent inequalities in child custody - as was simulated with the composition-adjusted cohort comparison - could come at the price of more adverse emotional effects of divorce for mothers (cf. Table 7). Besides measures that facilitate work-family reconciliation such as affordable child care, the advancement of shared custody could bring relief to divorced mothers (van der Heijden et al. 2016). On top of that, by attenuating the shattering of father-child relationships due to family breakup, shared custody could also reduce the emotional consequences of divorce for fathers.

To strengthen such conclusions, future research should prioritize long-term panel data to study change in the consequences of divorce for parents (cf. Tach and Eads 2015; Tamborini et al. 2015). While spanning several decades, such data should comprise well-being instruments that comprehensively measure parents' well-being in economic as well as immaterial domains, such as life satisfaction, emotional well-being and work-family conflict (cf. Kalmijn 2017; Leopold and Kalmijn 2016) and include a large variety of couple arrangements (such as female breadwinner couples). This promises greater insights into the mechanisms which underlie gender differences in the material and immaterial consequences of divorce – such as inequality in economic resources and personal relationships - and would help to assess the social risks linked to couple specialization more reliably.

7.7. Appendix: The Consequences of Divorce for Mothers and Fathers: Unequal but Converging?

Table 8. Divorcee-counterfactual differences in equivalized household income by measure of economic well-being

	(1) Gross	(2) Net: minus paid support payments	(3) Subjective: easily manage finances
Divorcee-counterfactual difference: mothers	0.657***	0.654***	0.770***
	(0.0494)	(0.0486)	(0.0567)
Fathers (counterfactuals)	1.028	1.027	1.058
	(0.0884)	(0.0874)	(0.0891)
Divorcee-counterfactual difference: gender interaction	1.613***	1.408**	1.179
	(0.192)	(0.166)	(0.137)
N	280	280	280

Exponentiated coefficients; Standard errors in parentheses
Support payments are the sum of payments to an ex-partner or children. Source: IFG (see section Data strategy).
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 9. Divorcee-counterfactual differences in emotional well-being by survey

	(1) FFS (1994-1995)	(2) SHP I (1999)	(3) SHP III (2013)	(4) IFG (2013)
Divorcee-counterfactual difference: mothers	0.896*	0.961	0.948	0.970
	(0.0434)	(0.0688)	(0.0561)	(0.0324)
Fathers (ref. mothers, counterfactuals)	0.964	1.113	1.078	0.970
	(0.0499)	(0.0810)	(0.0706)	(0.0355)
Divorcee-counterfactual: gender interaction	1.045	0.894	0.962	0.994
	(0.0765)	(0.0920)	(0.0938)	(0.0526)
N	236	191	166	316

Exponentiated coefficients; Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 10. Divorcee-counterfactual differences in the SHP, cross-sectional versus fixed-effects estimates

	(1) Depression reversed: cross-sectional	(2) Depression reversed: fixed effects	(3) Household income, equivalized: cross-sectional	(4) Household income, equivalized: fixed effects	(5) Household income, equivalized, after transfers to other households: fixed effects
Divorcee-counterfactual difference: mothers	0.957	0.914**	0.771***	0.591***	0.593***
	(0.0445)	(0.0301)	(0.0544)	(0.0199)	(0.0200)
Fathers (ref. mothers, counterfactuals)	1.095		1.088		
	(0.0540)		(0.0815)		
Divorcee-counterfactual: gender interaction	0.927	1.005	1.534***	1.725***	1.425***
	(0.0657)	(0.0369)	(0.165)	(0.0623)	(0.0517)
_cons	3.895***	0.540	3738.2***	6030.1***	5997.2***
	(0.128)	(0.382)	(187.2)	(4111.5)	(4098.3)
N	360	1614	386	2207	2199
Individuals		351		397	397

Exponentiated coefficients; Standard errors in parentheses

Cross-sectional estimates: OLS under usage of entropy-balancing generated weights on pooled observations from SHP I and SHP III.

Fixed effects estimates: observations from longitudinal structure of SHP up to four years before and four years after separation, marital separation between 2000 and 2016. All estimates refer to effect of household separation when child below 18 is present and are restricted to individuals age <50.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

8. Outpacing the Gender Revolution? Economic Gender Equality, the Deinstitutionalization of Marriage and the Decline of Adult Alimony after Divorce

8.1. Introduction

Partnership change has brought substantial upheaval to family law in Western countries (Eekelaar 2017; Grossman and Friedman 2011; Lamb and Sagi 2014; Oldham 2016). On one hand, there is disagreement about whether and to what extent cohabitation should be linked to formal rights and responsibilities (Jeandidier 2017). On the other hand, family scholars have diagnosed the *deinstitutionalization* of marriage (Walker 2016). The term summarizes the trend that social (and legal) norms which link marriage to certain privileges and obligations are weakening (Cherlin 2004).

The social meaning of marriage becomes apparent in divorce law (Cherlin 2004; Ribot 2011). Besides child custody, the main issue at stake in divorce negotiations are the economic outcomes of divorce. In this chapter, I study change in the social meaning of marriage by examining the downward trend in adult alimony[18]. As a matter of fact, the available evidence suggests that legal orders of adult alimony are becoming less prevalent in Western countries. Whereas in the Scandinavian welfare context alimony has become a marginal phenomenon early on in the 20th century (Laplante 2016; Ribot 2011), many other countries are catching up with declining transfers between divorced spouses (Bröckel and Andreß 2015; Meyer et al. 2015). US law scholar Judith McMullen expects that due to "complex long-term social forces", adult alimony will, "probably sooner rather than later", be restricted to couples in highly particular circumstances (McMullen 2014; Oldham 2008).

What are these "complex long-term social forces"? In industrializing societies, marriage essentially was a gendered institution. Husbands were often attributed full control of couples' property and, for long periods, wives could perform paid work only under husbands' permission. The legalization and diffusion of divorce has challenged such structural inequality. Adult alimony was one of the solutions to align husbands' economic advantage in couples and women's economic vulnerability with the possibility for marriages to end in divorce (Katz 2014, p. 95; Kisthardt 2008; McMullen 2011). Hence, as women's access to the couples' property, their capacity to acquire own economic resources and more egalitarian allocations of child custody after divorce increased, alimony has lost its core function

[18] In most cases, adult alimony takes the form of regular payments from ex-husbands to ex-wives. It is also referred to as spousal support payments or spousal maintenance (Kisthardt 2008).

(Oldham 2008). One explanation of the decline in adult alimony thus are declining levels of spousal inequality in economic resources and needs.

However, contrary to most child support systems, explicit rules that link spouses' economic resources with alimony orders are often lacking. This opens scope for subjective judgments to influence alimony negotiations (Ellman and Braver 2012; Oldham 2017; Starnes 2011). I therefore expect that, rather than being the sole result of changing *objective* levels of economic inequality between spouses, alimony awards could have become rarer due to changing marital norms. Indeed, descriptions of American and European divorce law practice suggest that more critical stances towards alimony have emerged recently (Bröckel and Andreß 2015; McMullen 2014; Ribot 2011). Such criticism is innate to the promoted ideal of "clean breaks", which argues that alimony should be avoided because it implies excessive relational burdens to divorced spouses (Crowley 2016, 2017; Ribot 2011). Another critique refers to the economic dependence alimony creates. Because it discourages women's employment (Chiappori et al. 2017; Rangel 2006; Schaubert 2018), alimony is regarded as an obstacle to the their empowerment (Berghahn 2004; Leroyer 2016).

Normative and institutional changes do not preclude that *economic convergence between spouses has driven the decline in alimony awards*. Yet, they predict that *such changes in divorcees' characteristics cannot account for all of the decline*. Drawing on case-level court reports of the universe of divorces enacted in Switzerland between 1990 and 2008 merged with couple income data from administrative registers from 1982 to 2008, this study tests this expectation. Performing a Blinder-Oaxaca-Decomposition analysis, it quantifies how much of the decline in the probability of adult alimony orders between the beginning and the end of the study period can be explained with changes in wives' and husbands' incomes prior to divorce judgments and increasingly egalitarian child custody arrangements. The introduction of pension splits additionally reduced economic gender inequality in the study period. The data do not allow for a direct test for the role of lower wealth inequality for the decline in alimony. However, by assessing the decline in alimony among divorces without pension splits, it is able to isolate the role of greater wealth equality for the decline in alimony.

The study makes both, original practical and theoretical contributions. From a policy perspective, the results shed light on the reasons for the persistence of divorced women's economic hardship found in several contexts (Bröckel and Andreß 2015; Hauser et al. 2016; Kessler 2018; Le Bourdais et al. 2016). If the decline in alimony outpaced the increase in divorced women's income and shared custody, then reduced private transfers could explain women's high levels of public benefit take-up after divorce (Bröckel and Andreß 2015; Kessler 2018). From a theoretical perspective, alimony negotiation outcomes in Switzerland are particularly suited to study the impact of changing marital norms. On one

hand, given the high marriage and parenthood penalties for women (Le Goff and Levy 2017; Valentova 2016) coupled with married men's high average incomes, adult alimony is relatively common in the international comparison (de Vaus et al. 2017). On the other hand, norm change was particularly drastic in the study context. The abolition of fault-based divorce with the divorce law revision in 2000 has fundamentally altered argumentation in alimony negotiations (Büchler and Cottier 2012, pp. 191–201). While divorce law practice prior to the revision was under the influence of institutional marriage law of 1907, later divorce settlement were negotiated with reference to a gender egalitarian model of marriage. Hence, following a long-standing demand in empirical family research to increase knowledge about adult alimony (Shehan et al. 2002), this research uses an innovative data design (Connelly et al. 2016; O'Hara et al. 2017) in a highly dynamic normative context to reveal the economic implications of the deinstitutionalization of marriage.

8.2. The changing meaning of marriage and the decline in adult alimony

Decisions on adult alimony are the joint outcome of the parties involved in a legal divorce process. This usually includes the spouses filing for divorce, their legal representatives and judges who approve the judgment, although the latter not always play an equally involved role in negotiations. Unlike most child support determination systems (Meyer et al. 2011), adult alimony is often lowly regulated. Therefore, decision-making is prone to value judgments (Ellman and Braver 2012; McMullen 2014; Oldham 2017). To understand changes in the outcomes of alimony negotiations, it is therefore crucial to consider change in marriage norms on which litigants oriented themselves. To what extent has marriage implied expectations of economic obligation towards potential payers and to what extent has it implied expectations of economic rights for a potential payee?

I argue that Andrew Cherlin's (2004) suggestion of a twofold transition in the meaning of marriage well captures the transformations in norms on the economic implications of marriage in Western countries. Each of the successive models of institutionalized, companionate and individualistic marriage (Cherlin 2004) can be linked to a distinct rationale of divorce and alimony. In the remainder of the section, I describe the main features of each of these marital models and their implication for divorce and adult alimony. Building on these ideal-typical changes in marital models, I derive hypotheses on the decline in adult alimony in Switzerland (the taxonomy of alimony principles partly builds on Binkert and Wyss 1997, p. 26).

8.2.1. Alimony under institutionalized marriage

Rooted in the circumstances that arose with industrialization, institutionalized marriage prescribes non-negotiable roles for husbands and wives. With the conclusion of the marital contract, the husband became the head of the couple and the wife was responsible for care and housework (Binkert and Wyss 1997, pp. 6–13). In the strongest form of such patriarchal marital regimes, husbands controlled all income and property and could deny women's employment (McMullen 2011).

In principle, under institutionalized marriage, divorce was considered exceptional and pathological. Access to it was mostly limited to social groups of higher social status (Goode 1993). If divorce was allowed at all, it was regulated by a system of fault-based divorce. The spouse that claimed the divorce had to prove his or her spouses' fault.

Because under institutionalized marriage husbands formally controlled the couples' economic resources, there was a strong legal basis to argue in favor of alimony (Büchler and Cottier 2012, p. 191). Alimony was the only way to prevent that divorced women become dependent upon social welfare. Yet, alimony negotiations were also strongly guided by the question of fault. Alimony served as a sanction for husbands if their behavior resulted in the divorce (e.g. in cases of partner violence). At the same time, fault also provided the basis for the negation of alimony if the potential recipient was judged responsible for the divorce (e.g. in case of adultery) (Büchler and Cottier 2012, p. 193; Kisthardt 2008; Oster 1987; Shehan et al. 2002). In sum, under the institutionalized marriage model, divorce law was directed towards protecting marriage and its function of guaranteeing women's economic security (González and Viitanen 2009).

8.2.2. Alimony under companionate marriage

Historically situated in modernized societies, the companionate marriage model stresses the relational character of marriage. This marital models thereby supplements socio-functional gains from role specialization with the emotional benefits that arise from taking specific roles in the marital couple (Burgess and Locke 1945; Finch and Summerfield 2003). While accepting fundamental gender differences, under this regime, marriage is strongly linked to romantic feelings. Married partners are not only a functional unit, but love and care for each other (Cherlin 2004).

This view of marriage is more compatible with divorce than institutionalized marriage. Due to its focus on the emotional benefits of a partnership, it implicitly accepts the idea that marital bonds eventually lose their meaning to spouses. These views are embodied by mutual-consent divorce systems. Under such regimes, divorce is easily available (Sietse Bracke and Mulier 2017) if both spouses agree on ending the marriage.

The relational character of marriages also provides a basic justification for mechanisms that align the economic consequences of divorce between spouses. Economic transfers between divorced spouses are motivated by reference to solidarity that arises from the marital relationship (Büchler and Cottier 2012, p. 193; Ribot 2011). The relational motivation of alimony is reflected in the importance of considerations of temporal aspects of the marital relationship for alimony determination. Among a large variety of criteria that legal practice considers in determining alimony, length of marriage is now among the most universally found ones (Shehan et al. 2002). Many legal texts require that marriage is of a certain duration for alimony to be awarded at all (Doriat-Duban and Bourreau-Dubois 2012; Morgan 2017).

8.2.3. Alimony under individualistic marriage

With its focus on personal satisfaction from taking spousal roles, the companionate model of marriage has paved the way for individualistic marriage (Cherlin 2004). Embedded in post-modern societies, this model is aligned with individuals' strive for self-realization (Beck and Beck-Gernsheim 2002; Giddens 1991). The marital relationship derives its quality because it provides the individual with the benefits of a close personal relationship. However, in contradiction to the companionate model of marriage, it does not necessarily involve unequal roles for wives and husbands. From this view, marriage is not a forced commitment. It is an entirely voluntary agreement between spouses that does not imply any behavioral scripts (Cherlin 2004).

Following these premises, individualistic marriage is open to divorce as soon as it no longer provides utility to any member of a couple. This view is in accordance with systems of unilateral divorce. Under these regimes, divorce is allowed upon request of only one party. In practice, unilateral divorce often requires some time of physical separation (González and Viitanen 2009).

In principle, alimony conflicts with individualistic views of marriage (McMullen 2011). On one hand, alimony obligations make it more difficult for payers to detach from the former partner and to found a new family (Crowley 2016). On the other hand, alimony prevents payees' from becoming economically autonomous, because it decreases the need for an own income (Chiappori et al. 2017; Rangel 2006; Schaubert 2018). Alimony thus deters individuals from achieving self-realization (Crowley 2017).

Arguments for alimony arise in this framework only if they rely on the individual consequences of marital relationships (Landes 1978; Oster 1987). The underlying premises of such arguments are that role specialization after marriage and parenthood has irreversible effects on human capital (Becker 1985) and that spouses explicitly agree on marital roles. While the marriage persists, income sharing between the spouses compensates marriage and parenthood penalties. In the event of a divorce,

alimony ensures that this compensation of economic gains and losses of marriage and parenthood is continually fulfilled (Jeandidier and Lim 2015). Alimony thereby enables the realization of individual preferences for role specialization in contexts where divorce is likely. Without alimony, specialization would be too risky and individuals would refrain from it (Landes 1978). Table 11 summarizes all marital models, their relation to divorce and the expected role of adult alimony among them.

Table 11. Marriage, divorce and alimony under different marital regimes

	Institutionalized model	**Companionate model**	**Individualistic model**
Mearning of marriage	Functional, couple as an economic unit, husband formally responsible for wives' economic security	Relational, couple as an economic *and* emotional unit	Individualized, marriage as a means to achieve self-realization
Divorce	Divorce as a pathology; fault-based divorce	Divorce accepted when both spouses agree; mutual-consent divorce	Divorce accepted when one spouse wishes to do so; unilateral divorce
Adult alimony	Frequent, exception if divorce was wives' fault	Less frequent; based on post-marital solidarity; only for long-term relationships	Less frequent; alimony only as compensation of marriage and parenthood penalties

8.2.4. Economic gender equality and the decline in alimony

Although these marital models fundamentally diverge with respect to the function of marriage and divorce, one aspect that is common among them is their focus on economic inequality between husband and wife in motivating alimony. Institutionalized marriage addresses economic inequality by reference to husbands' formal responsibility for their wives' economic security, companionate marriage relies on solidarity that arises from unequal marital roles and individualized marriage stresses the need to compensate the consequences of marriage for individuals. These views are in line with an economic explanation of the decline in alimony. Irrespective of the normative and legal framework under which alimony is negotiated, lowered differences in economic resources and needs between spouses during and after marriage weaken argumentation in favor of alimony.

In contradiction to claims of a "stalled revolution" (Hochschild and Machung 2012), descriptions of trends in economic gender inequality report continuous convergence. Women's labor market participation, as well as their wages have become more equal to the ones of men (Jann and Engelhardt 2008; Kleven et al. 2018). Also, international long-term trends point towards a more egalitarian division of unpaid work as well (Sullivan et al. 2018), although some social groups and contexts lag behind (Goldscheider et al. 2015).

These studies usually refer to general population gender differences and do not directly report on the situation at divorce. Yet, there is unmistakable evidence that the same trends apply to the divorced populations as well. In the US, the economic consequences of divorce for mothers have decreased in the last three decades as a result of their higher earnings (Tach and Eads 2015). For the same period, Maria Cancian and colleagues (2014) report "dramatic" increases in children's post-separation living arrangements with more frequent sharing of child custody. Similar trends of increases in divorced women's earnings have been reported with the German Socio-economic Panel (Bröckel and Andreß 2015) and the British Household Panel (Jenkins 2008).

For Switzerland, there are several arguments that suggest lowered economic gender inequality in divorcing couples. On one hand, I have shown that recently divorced women's labor market participation rates have increased between the 1990s and 2013 (see chapter 3). Although previous research has shown that the rise in mother's labor market participation was largely restricted to part-time employment (Liechti 2014; Struffolino and Bernardi 2017), I expect that the greater share of employed women has caused a reduction in earnings inequalities between divorcing spouses.

On the other hand, in 2000, Swiss divorce law has been revised with the main goal of reducing couple inequality in the economic consequences of divorce. A first element that sought to achieve more equality was the introduction of shared legal custody. In chapter 2, I have shown that gender differences in physical custody arrangements after divorce have been largely unaffected by this change in regulation. Yet, I still expect that the greater legal responsibility could have led to more involvement by divorced fathers in the upbringing of their children. This reduces argumentation in favor of alimony based on divorced mothers' time spent for child care. A second element that aimed at aligning the consequences of divorce for men and women was the introduction of occupational pension splits in 1995 and its installment as the default regulation with the divorce law revision in 2000 (Büchler and Cottier 2012, p. 198). The rule commands that all pension assets which were accumulated during marriage are split half at divorce. Although pension splits have no immediate impact on economic inequality between divorced spouses, they could have importantly affected alimony negotiations. The legal paragraph on the determination of alimony (Art. 125) explicitly states that decision on alimony should take inequality in pension levels into account (i.e. order alimony in fewer cases when pension assets are split).

In sum, I expect that women's higher earnings (at constant levels of husband earnings) and more egalitarian parenting arrangements to have reduced economic inequality among divorced couples. I expect that, due to such trends, divorcing women increasingly were considered ineligible to alimony. On this backdrop, my *first hypothesis states increases in wives' incomes and more egalitarian child*

custody arrangements explain the decline in alimony orders from husbands to wives between divorces that took place before and divorces that took place after the law revision. Because the study cannot make use of information on the division of pension assets in both periods, I do not formulate hypotheses on the impact of the introduction of pension splits on changing levels of alimony but assess their role with a robustness test (see section 8.6).

8.2.5. Changed marital norms and the decline in alimony

An alternative explanation of the decline in alimony refers to behavioral change of parties involved in alimony negotiations. In line with the hypothesis of the deinstitutionalization of marriage (Cherlin 2004), I argue that social expectations on the economic rights and duties associated with marriage have changed. Most importantly, the idea that the husband is the head of the marital household and has total economic responsibility has become weaker.

I expect that such normative changes had consequences for the outcomes of alimony negotiations. Descriptions of the state of European and American maintenance law put forward that the determination of spousal support is increasingly guided by the hallmarks of "clean breaks" and "economic self-sufficiency" (McMullen 2014; Ribot 2011; Schwenzer 2009). The principle of "clean breaks" builds on the assumption that alimony negotiations prolong divorce processes and spousal conflict (making the divorce "dirty"). Promoting "clean breaks" is thus motivated with the hopes that a lack of financial obligations after divorce accelerates the divorce process and reduces conflict. Hence, one may link the goal of "clean breaks" with the emergence of a companionate understanding of marriage and family relationships where relational and emotional outcomes of formal agreements are central (Crowley 2016; Singer 2009). The principle of "economic self-sufficiency" rests on the assumption that alimony has discouraging effects on the recipients' labor supply because it reduces the payees' need to generate an own income. Such economic dependency is in conflict with an individualized understanding of marriage. On this backdrop, feminist scholars have interpreted the system of spousal alimony as an obstacle to women's empowerment (Berghahn 2004; Leroyer 2016).

The divorce law revision in 2000 marked the end of fault-based divorce in Switzerland. This change was part of the shift towards companionate marriage law which was introduced in 1988 ("Partnerschaftliche Ehe"). Similarly to several other European countries (e.g. France or UK), fault-based divorce was simultaneously replaced by both mutual-consent and unilateral divorce (González and Viitanen 2009). In line with such new basic legal framework of divorce, descriptions of Swiss divorce law practice suggest that the shift away from institutional marriage have increased the weight of the principles of "clean breaks" and "economic independence" in alimony negotiations (Büchler and Cottier 2012, pp. 193–194; Schwenzer 2009).

Given reduced institutional and social support for adult alimony, I expect that, alimony has declined not only as a result of a changed composition of divorcees, but also as a consequence of changed evaluation standards in alimony negotiations. *My second hypothesis therefore states that changes in wives' incomes and the introduction of more egalitarian child custody arrangements cannot fully explain the decline in alimony*.

8.3. Methodology

8.3.1. Data sources and study population

The analyses draw on the universe of case level court reports on divorces in Switzerland between 1990 and 2008[19] that were collected by the Swiss Federal Statistical Office (FSO). From the total of 319'763 divorces legally enacted in this period, 99.2% contained full information on the study variables (a part from income). To account for involved couples' incomes, I linked court data with income registers of the central compensation office 1982-2008. Due to non-availability of pension incomes, in both cohorts, I restrict the analyses to divorces where both spouses have not reached pension age (wives: below 64, husbands: below 66). To ensure an income observation period of six years before the start of divorce processes (see below), I restrict the maximum difference between the start of the divorce and its legal enactment to two years (earliest divorces were started in 1988). These steps reduce the sample to 93.3% of the universe of all divorces.

The data merge between divorce and income data drew on social security numbers of individuals involved in divorces. Because social security numbers are not included in court data, I probabilistically linked court data to the Swiss civil registry data base (infostar) where social security numbers of all individuals living in Switzerland since 2005 are listed. For this purpose, I used information on individuals' date of birth and date of last civil status change. To identify individuals' date of last civil status change for divorced individuals who remarried or remarried and divorced for a second time (et cetera), I matched information on marriage dates from the FSO marriage data base to the divorce data base. I required social security numbers from both members of the divorcing couple[20]. In total, this reduced the analytical dataset to 45.4% of the universe of divorces.

A logistic regression model predicting identification of social security numbers of both couples suggests that, compared to all divorces, identified and merged divorces are in later years, are more likely to be divorces where both members held Swiss citizenships before marriage and where the wife received

[19] Court based information was collected by the FSO as a basis for divorce statistics. To reduce the administrative burden for courts, information on alimony awards was no longer collected after 2008. Since 2010, divorce statistics in Switzerland are based on the Swiss civil registry data base (infostar).

[20] Which importantly reduced the sample. Another reason for case loss was the requirement that the combination of day of birth and day of divorce or day of remarriage had to be unique.

sole legal custody of common children (predictors whose coefficients where statistically significant at p<.001). To adjust for observed selectivity, all calculations including income variables are corrected with inverse probability weights based on the prediction from the logit model. The weights account for differences in the year of divorce, the year of divorce interacted with age of the husband at divorce, age of the wife at divorce, marital duration quintile dummies, time between divorce procedure and legal enactment, dummies for an alimony order, the category of duration of alimony, the payment of a lump sum, pension splits, as well as the number of children, Swiss citizenship before marriage, age and custody of children, region and type of geographical area.

8.3.2. Measures

Alimony awards are measured with a dummy variable indicating whether the wife was awarded compensatory payments in any form: either in the form of a lump sum payment, regular payments or both. In the descriptions of trends in alimony awards, I additionally report changes in the direction and the duration of the awards, as well as changes in the frequency by which they included lump sum payments.

Wives' and husbands' incomes include gross incomes (before social security deductions and paid taxes) from dependent employment, self-employment and social insurances[21] in the six years prior to the initiation of the divorce process. All incomes have been adjusted to December 2015 price levels to adjust for changes in wages and prices between over time[22].

To approximate the extent of egalitarianism in child care arrangements, I constructed a categorical variable using information on the *attribution of legal custody*. It indicates whether at the time of the judgment, the couple had no children together, a youngest child aged 18 or older (there is no decision on custody in the case of adult children), at least one minor child where custody was shared between parents or where custody was mixed (one or more children allocated to mother and one or more children allocated to the father[23]), at least one minor child whose custody was fully attributed to the father, at least one minor child whose custody was fully attributed to the mother. Legal and physical child custody often diverge in Switzerland (Cantieni 2007). Yet, I generally expect that the greater the share of legal custody which is allocated to the mother, the more she provides child care, the more

[21] Unemployment insurance benefits, military insurance, motherhood insurance. Annual incomes below CHF 2300 are not registered.

[22] A repetition of the analysis using couple-level indicators of income inequality instead of individual level indicators – the wives share of the couples' income sum and wives' income instead of wives' and husbands' incomes – does not lead to different conclusions. Pseudo R-squares are lower with couple-level income indicators.

[23] In the 1990s cohort, observations in this category are restricted to mixed custody because shared custody was not yet available.

she is restricted in her earning capacity (van Damme et al. 2009) and the greater is the perceived justification for adult alimony.

I account for several additional characteristics that are potentially related with alimony decisions, wives' and husbands' incomes as well as with child custody decisions. All the models in the study control for the following dimensions.

Marital duration is measured with the duration between the legal date of marriage and the date of the divorce judgment. As outlined above, I expect alimony to be more frequent after some threshold of marital duration.

Wife initiator status is measured with a dummy indicating whether the wife formally requested the divorce or whether the husband filed for divorce, the couple filed jointly or a third party. Under the fault-based system, I expect that a wife initiation status reflects the husbands fault, leading to more frequent alimony awards. On the contrary, under unilateral divorce, a wife initiator status reflects a unilaterally requested divorce by the wife. Because under unilateral divorce, a divorce request could be strategically used to receive alimony, I expect that a wife initiator status predicts less alimony under the no-fault regime (among the later divorce cohort) (Bracke et al. 2010).

Age at divorce measures the age of the husband and the age of the wife at judgment. I expect age to matter for alimony decisions because it determines how much time individuals potentially spend on the labor market before reaching retirement. In the case of husbands, I therefore expect age to be negatively related to alimony orders, while for wives, I expect a positive association.

The couple combination of *citizenship before marriage* is used as an approximation for spouses' relative wealth and earnings potential. I expect husbands with a non-Swiss citizenship prior to marriage to have less wealth and earnings potential and therefore to be less likely to be ordered to pay alimony than husbands with a Swiss citizenship. From this follows the expectation of a reversed association for wives' citizenship.

Region captures the adherence to one of the seven regions ("Grossregionen", NUTS-2-Level) by the reference person[24]. A typical area with more egalitarian gender policies and attitudes expressed by its inhabitants is the Leman region – a counterexample is central Switzerland (cf. Gasser et al. 2015). *Geographical characteristics* reflect the type of area of the reference person. It distinguishes three types: urban areas, agglomerations or rural centers and rural areas. I expect that urban regions to have

[24] It is unknown whether the reference person is the wife or the husband, but, as this information is likely taken at the initiation of the divorce, we expect the information to refer to the couple households' location in most cases.

more progressive gender policies and attitudes expressed by its inhabitants than agglomerations or rural centers (ibid.). I assume that alimony awards are less frequent in areas with more egalitarian gender policies and attitudes.

8.3.3. Analytical strategy

Adapting the study design of Meyer et al. (2015) used for explaining declines in child support orders, I structure the analysis along five steps. First, I report annual trends in the direction and the duration of alimony awards and the frequency by which they included lump sum payments in all divorces between 1990 and 2008. Second, I compare the characteristics of divorced couples at the beginning of the study period which represent the situation under the old divorce law regime (1990-1992, henceforth 1990s) with the characteristics of divorces at the end of the study period which represent the situation under the new divorce law regime (2006-2008, henceforth 2000s). This quantifies how much the composition of divorcing couples and involved individuals has changed. Third, a prerequisite for income and child custody arrangements to explain changes in the frequency of alimony awards is that they are associated with alimony awards. To assess the strength of the associations, I calculate cohort-specific logistic regression models predicting alimony awards. These models can be written as

$$\Pr(Y_{ir} = 1|X_{iR}) = \frac{1}{1+e^{-(\beta_R * X_{iR})}} \qquad (1$$

$$\Pr(Y_{il} = 1|X_{iL}) = \frac{1}{1+e^{-(\beta_L * X_{iL})}} \qquad (2$$

where $\Pr(Y_i = 1|X_i)$ denotes the probability that the wife in divorce i in the reference cohort in the 1990s (R) resp. in the later cohort in the 2000s (L) is awarded alimony given the vector X_i of predictors (incomes, child custody arrangements and control variables). β describes the vectors of slope parameters of predictors X and the regression intercepts. To compare coefficients across models and assess stability in slope parameters between the cohorts, I calculate average marginal effects (AME) for each predictor in X (Auspurg and Hinz 2016; Mood 2010). I test statistical significance of cohort differences in AME based on a Chi square test statistic, which I derive from the quotient of the squared difference in AME over the sum of variances V of AME (Auspurg and Hinz 2016).

$$\chi^2 = \frac{(AME_L - AME_R)^2}{V_{AME_L} + V_{AME_R}} \qquad (3$$

Fourth, I perform a threefold Blinder-Oaxaca-decomposition from the viewpoint of the 2000s cohort. I decompose the difference in the probability of alimony awards between the two cohorts, D,

$$D = \Pr(Y_R = 1) - \Pr(Y_L = 1) = E + C + I \qquad (4$$

in a part E,

$$E = \{E(X_R)\text{-}E(X_L)\}'\beta_L \qquad (5$$

that summarizes the part of D which is related to change in divorcees' endowments – how much of the change can be related to differences in the levels of predictors (i.e. their composition)? -, a part C,

$$C = \{E(X_L)\}'(\beta_R\text{-}\beta_L) \qquad (6$$

that summarizes the part of D that is related to change in coefficients – how much of the change can be explained by different slopes of the predictors? - and a part I,

$$I = \{E(X_R)\text{-}E(X_L)\}'(\beta_R\text{-}\beta_L) \qquad (7$$

that quantifies how much of the difference is due to simultaneous changes in predictor levels and slope coefficients (Jann 2008). The overall results of the decomposition indicate how much the probability of alimony awards would be higher for the 2000s cohort if E, C or I were switched to the 1990s cohort.

Ultimately, I report the results of a detailed decomposition analysis for the part E. This allows me to assess the specific contribution of changes in income levels and child custody arrangements for the overall change in the probability of alimony awards. The crucial question is: how much would the decline in alimony differ if the 2000s cohort had the 1990s cohort levels of wife income and the distribution of child custody arrangements?

8.4. Results

8.4.1. Frequency of alimony awards in Switzerland 1990-2008

For each year between 1990 and 2008, Figure 4 plots the percentage share of all recorded divorces in which no alimony was granted, the direction of alimony awards and under which form and duration awards were set. It emerges that nearly all alimony orders directed regular payments from husbands to wives.

Alimony awards decreased strongly in the study period. Whereas in 1990, in more than every second divorce the wife was awarded alimony in divorce settlements, in 2008, alimony was ordered in only about 1 divorce in 3. A notable feature of the trend is the timing of the decline. Nearly all the change in alimony awards has taken place between 1996 and 2001. I interpret this abrupt character of the time trend as an indicator that the decline in alimony was *not* spurred by changes in the composition of divorcing couples. I expect that incomes or wealth to have changed at a more smoothed rate. Also, shared child custody was introduced mostly after the largest part of the decline has taken place.

Ultimately, it can be noted that the decline was not identical across types of alimony. Whereas the decline in the share of divorces where lifelong alimony is granted was continuous, the rate of short period or “rehabilitative” alimony (cf. McMullen 2014) fluctuated more strongly. After steep declines between 1996 and 2001, it rose again between 2002 and 2008, possibly as a substitute for the fewer instances where lump sums were awarded. Finally, it emerges that the most common type of alimony orders is not “rehabilitative” alimony but alimony that must be paid for a period of 5 to 10 years after divorce.

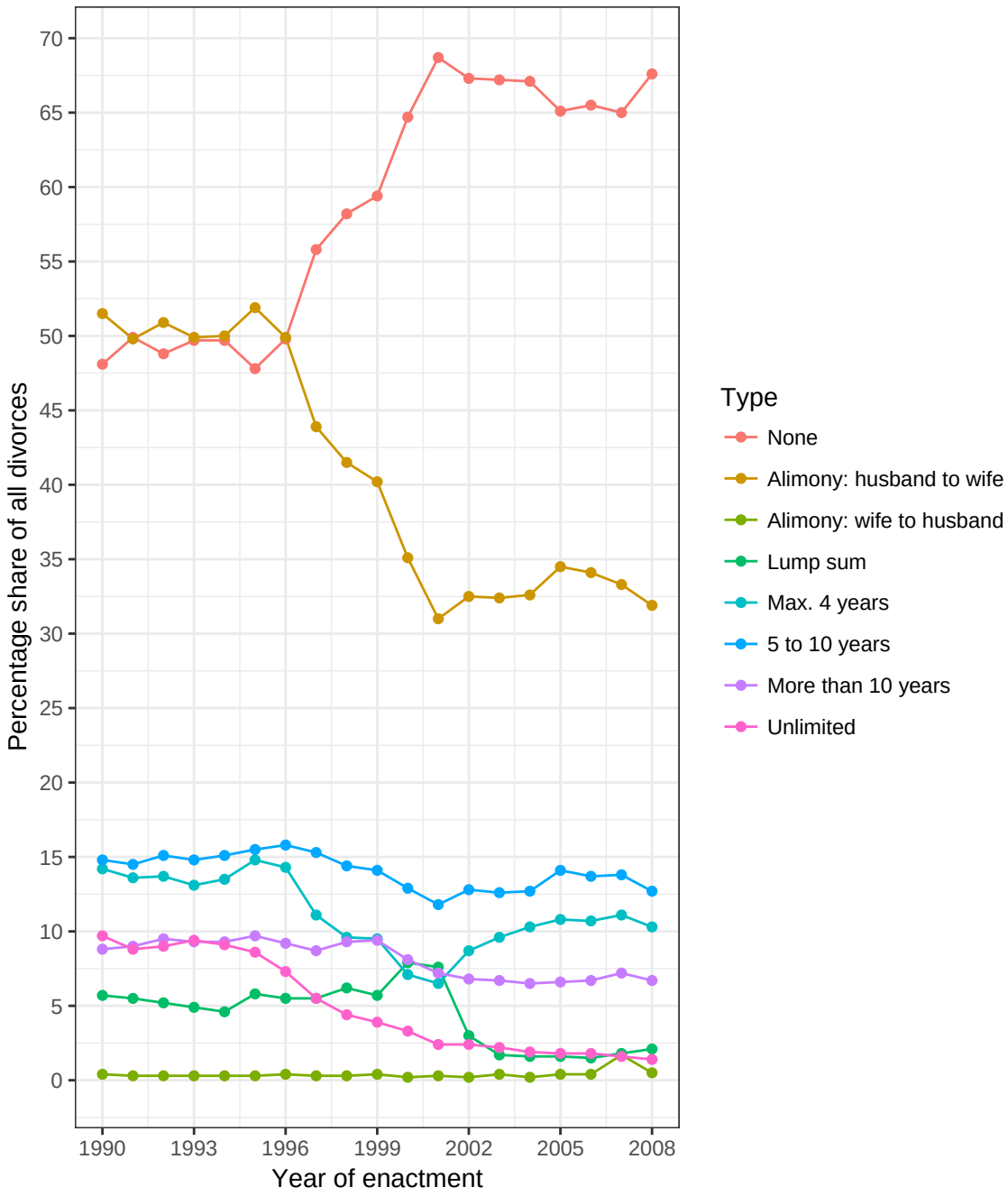


Figure 4. ***Overall and type-specific trends in alimony awards, divorces 1990-2008***

8.5. Changes in predictor levels (endowments)

In what direction and how much has the composition of divorcees changed as alimony orders became less frequent? Table 12 reports descriptive statistics of all predictors of alimony included in the models for divorces in the 1990s (enacted 1990-1992) and divorces in the 2000s (enacted 2006-2008).

With respect to incomes, the results suggest convergence between divorcing husbands and divorcing wives. Wives' average annual incomes in the six years prior to the initiation of divorce judgments increased by 12% between the cohorts with an average annual income of 27'200 CHF among divorces in 2006 to 2008. On the contrary, husbands' average incomes were largely stable across cohorts. With 62'300 CHF in the 1990s cohort and 600 CHF less in the 2000s cohort, it was more than double the amount of wives' incomes in both cohorts.

Child custody has become more equally shared between divorcing spouses. The introduction of shared custody coincided with a reduction in the proportion of mothers who have sole custody over children. The decline has been more pronounced for wives with custody over young children, which can also be attributed to greater shares of older couples who also have older children.

Other compositional changes do not unanimously point to fewer alimony awards. On one hand, the lowered share of wives' requesting a divorce[25], more durable marriages and wives' higher age at divorce would all imply a higher probability of alimony awards in the later cohort. On the other hand, husbands' higher age and more frequent divorces with individuals who held a non-Swiss citizenship prior to the marriage are in line with a lowered level of alimony awards in the later cohort.

Ultimately, for the 2000s cohort, I find that in 58.3% of divorces pension assets where divided between spouses. Data on the division of pension assets in divorces prior to the automatization of pension splits in 2000 is unavailable.

[25] From the viewpoint of the 2000s coefficient which implies a lower probability of alimony awards in case the wife initiated the divorce.

Table 12. Divorcees' composition, divorces enacted between 1990 and 1992 (1990s) and divorces enacted between 2006 and 2008 (2000s). Weighted results.

		1990s		2000s	
		Mean/%-Share	**Sd**	**Mean/%-Share**	**Sd**
Characteristics of divorce	Suing party: wife only	62		8.2	
	Pension split	-		58.3	
	Year of judgment	1990.5	1	2006.3	1
	Age at judgment, wife	36.5	7.9	40.7	8.8
	Age at judgment, husband	39.3	7.9	43.4	9.1
	Marital duration	11	8	13	8.6
Citizenship before marriage	Both Swiss	60.1		52.2	
	Him Swiss, her foreign	14.6		15.5	
	Her Swiss, him foreign	14.4		16.6	
	Both foreign	10.8		15.6	
Region	Leman region	21.5		19.4	
	Mittelland	20.6		23.3	
	Northwest	13.4		13.5	
	Zurich	21.6		19.5	
	East	12.8		12.6	
	Central	6.3		7.6	
	Ticino	3.8		4	
Geographical characteristics	City	73.1		68.1	
	Agglomeration/rural centres	16.5		18.9	
	Rural area	10.4		13.1	
Children, legal custody and age	No children from marriage	38.6		39.6	
	Adult children	15.6		14	
	Mixed/shared	0.9		15.8	
	Only father	3.7		2.1	
	Only mother	41.1		28.5	

		1990s		2000s	
		Mean/%-Share	Sd	Mean/%-Share	Sd
Average annual income, six years before judgment	Wife, 1000 CHF	24.3	21.3	27.2	23.4
	Husband, 1000 CHF	62.5	36.1	61.9	41.9
N		11975		38211	

8.5.1. Differences in predictor slopes (coefficients)

Can divorcees' incomes and child custody arrangement predict alimony awards and can they do so to a similar extent in the two cohorts? Figure 5 reports AME of wives' income, husbands' income and child custody arrangements[26] and 95% confidence intervals based on cohort-specific logistic regression estimates.

Although the sign of income coefficients is the same in both cohorts, I find significant differences in the magnitude of coefficients. In the 1990s cohort, an additional 50'000 CHF average annual income earned by wives reduced their probability of an alimony award by 16 percentage points. In the 2000s cohort, the reductive effect of additional income was significantly stronger (+10 percentage points, p<.001). The reverse pattern is found for husbands' incomes. While an additional 50'000 CHF increased their probability of being ordered to pay alimony by 9 percentage points in the 1990s, the effect was significantly stronger in the 2000s cohort (+ 4, p<.001).

But for the coefficient of mothers with sole custody, the association between child custody arrangements and alimony awards has remained largely stable between cohorts. In comparison to childless women, mothers with sole custody were 32 percentage points more likely to be awarded adult alimony in the 1990s, but only 25 percentage points more likely in the 2000s cohort (-7, p < .001).

Hence, in sum, it can be noted that the qualitative pattern of coefficients is largely stable across cohorts. Both, wives' and husbands' incomes, as well as child custody arrangements are strong predictors of alimony awards from husband to wives. Yet, there are some significant differences in the magnitude of coefficients. Wives' and husbands' incomes are more strongly associated with alimony awards in the later than in the earlier cohort. On the contrary, mother sole custody became a weaker predictor of alimony in the same period.

[26] See Figure 7 in appendix for the slope coefficients of the full model.

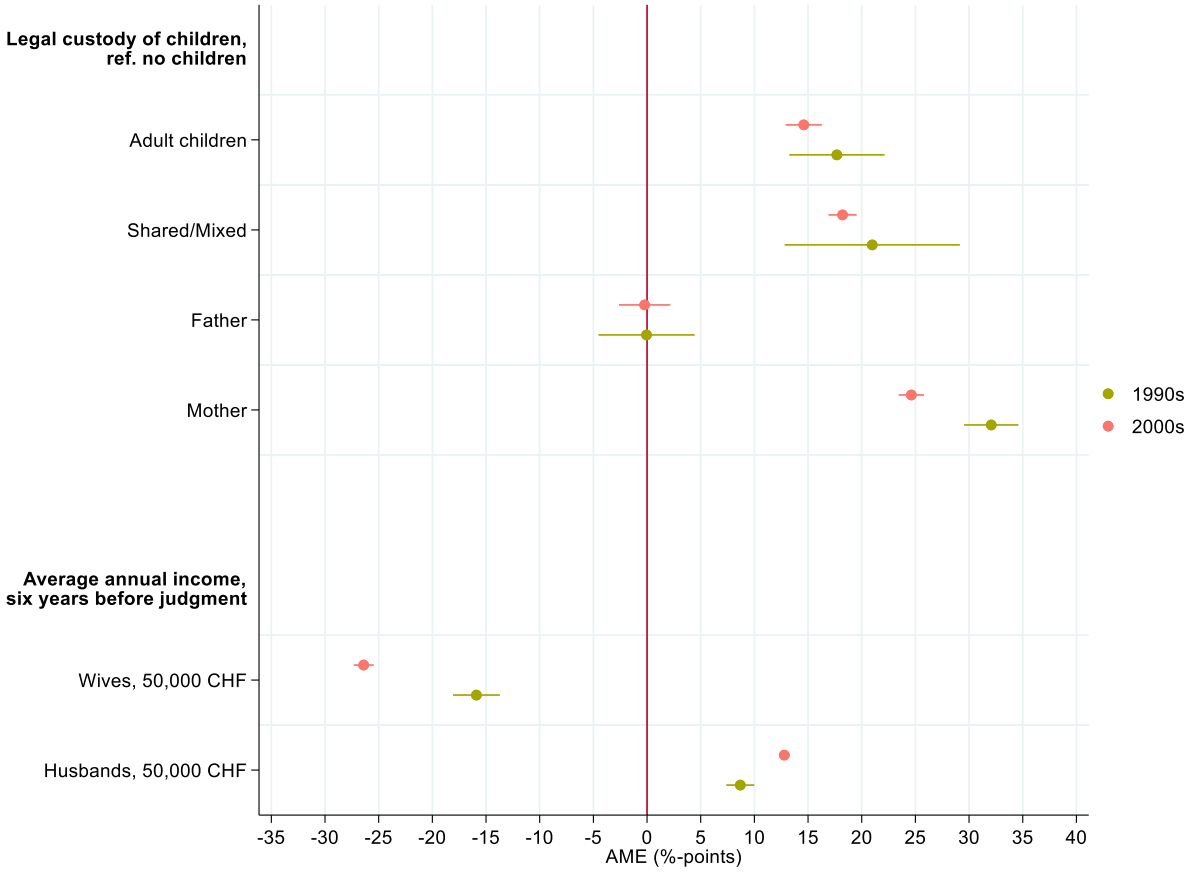


Figure 5. ***Average marginal effects (AME) and 95% confidence intervals on the probability of alimony awards. Based on separate logistic regression models for divorces 1990-1992 (1990s) and 2006-2008 (2000s). Non-reported coefficients: see appendix Figure 7. Weighted results.***

8.5.2. Decomposition of D

What explains the decline in alimony awards? Table 13 presents the overall results from the threefold Oaxaca-Blinder decomposition analysis. Most importantly, the decrease in the probability of alimony awards of 19 percentage points between the cohorts cannot be explained with changes in divorcees' endowments. On the contrary: if couples in the 2000s cohort had the 1990s cohort's average levels in endowments, the probability of alimony would be 1 percentage points higher than it is. In other words: the change in all observed characteristics of divorcing couples taken together has slowed down the decline in alimony.

The decline in alimony awards must thus be attributed to unobserved changes between cohorts. This is reflected in the coefficient part of D: alimony would be 21 percentage points more probable in the 2000s cohort if it had the coefficients of the 1990s cohort (including their constant). Simultaneously changing endowments and coefficients of is related with an increase of the probability of alimony by 1 percentage point in the 2000s cohort (it thus slowed down the decline).

Table 13. Overall results from the Blinder-Oaxaca decomposition of cohort differences in the probability (%) of alimony awards, weighted results.

Levels	
1990s	51.61
	(0.00541)
2000s	33.15
	(0.00243)
Difference (D)	18.45
	(0.00593)
Endowments (E)	-0.939
	(0.00595)
Coefficients (C)	20.70
	(0.00996)
Interaction (I)	-1.312
	(0.00971)
N	50477

Standard errors in parentheses

Can wives' higher incomes and more equal child custody arrangements explain the decline in alimony? Figure 6 reports the results of the detailed decomposition of endowment related differences in the probability of alimony awards between the cohorts. It expresses the difference in the expected probability of alimony awards for the 2000s cohort if it had the 1990s cohort average levels in the respective predictor. To put the results in relation to the observed changes, I express them in proportion to the observed decline in the probability of alimony awards of 18.6 percentage points.

It emerges that the absence of an overall endowment effect can be explained with other observed changes in endowments than income and child custody. Together, fewer women initiating the divorce, wives' and husbands' increasing age at divorce, longer marital duration, lower number of couples with Swiss citizenship, and changing locations of divorces slowed down the decrease in alimony. Given the 2000s cohort would have the distribution of the 1990s cohort in these domains, the decline would have been 19% less steep than observed (i.e. the 2000s cohorts' expected probability of alimony awards would be 37% instead of 33%)[27].

Hence, I find that changes in wives' incomes and child custody arrangements can explain the decline in alimony awards. If wives in the 2000s cohort had the income levels and the distribution of child

[27] See Figure 8 for detailed results on each control variable.

custody arrangements of the 1990s cohort, the probability of alimony awards would have declined 13% less, i.e. the expected probability of alimony awards would be 35% instead of 33%. Because husbands' incomes remained largely unchanged across cohorts, I do not find any impact of changes in husbands' incomes on changing levels of adult alimony awards. In sum, these results support both, my first and second hypothesis. The reduction in economic gender inequality as measured with changes in wives' incomes and changed distributions of legal custody can explain fewer alimony awards in later divorces. However, in line with hypothesis 2, such compositional changes can only explain a minor part of the total decline of 18 percentage points.

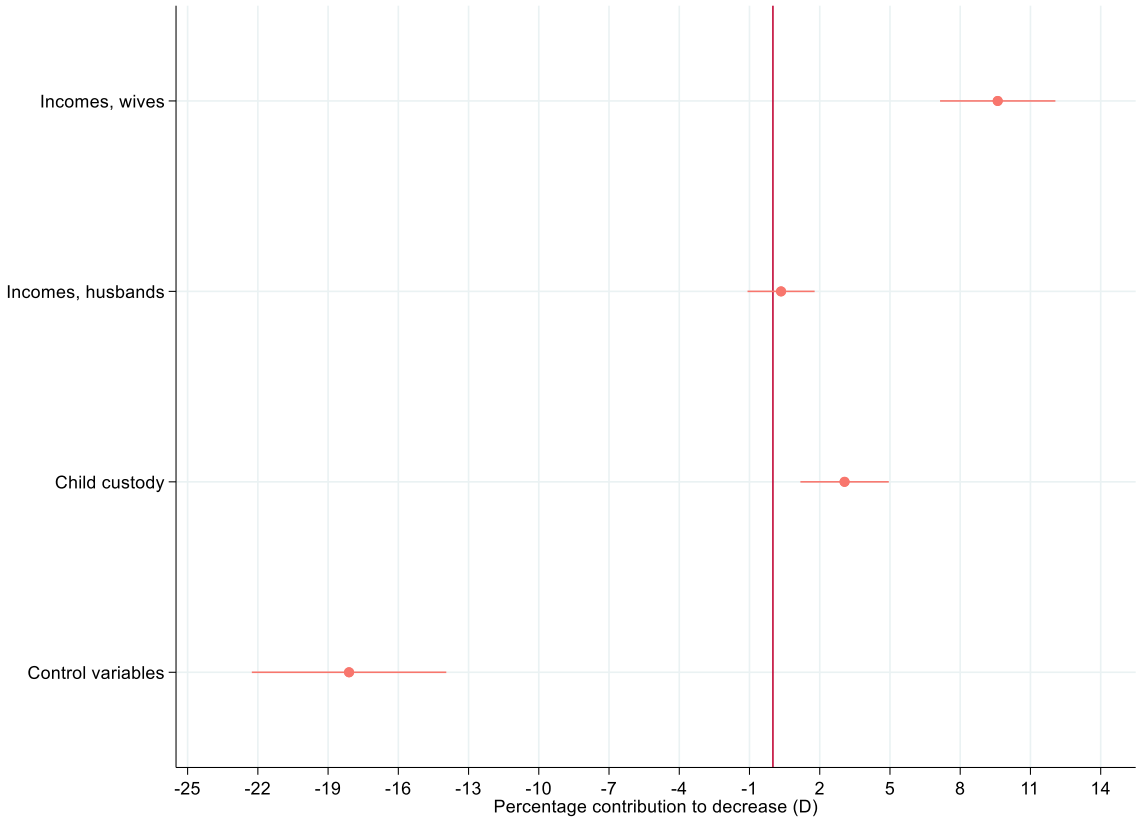


Figure 6. Percentage contribution to decrease (D) of changes in endowments and 95% confidence intervals, detailed decomposition. Based on logit models for divorces 1990-1992 (1990s) vs. 2006-2008 (2000s). See appendix Figure 8 for the contribution of each control variable. Weighted results.

8.6. Robustness checks: the introduction of pension splits or changed norms?

Given the abrupt character of the alimony trend (cf. Figure 4) and the low explanatory power of changes in incomes and child custody arrangements, I expect two alternative developments to be responsible for the decline in alimony awards. Following the argument on lowered inequality in economic resources between divorcing spouses (hypothesis 1), a first explanation is the introduction

of occupational pension splits in 1995. Following the argument on changes in marriage norms (hypothesis 2), the second explanation are changed evaluation standards applied in alimony negotiations.

I cannot directly discriminate between such explanations because there is no information on couples' wealth at divorce nor on norms applied in alimony negotiations. Yet, one way of approaching the question of the extent to which the introduction of pension splits is responsible for the decline in adult alimony is to consider trends in alimony awards among couples where I do not *expect* pension splits.

For this purpose, I use information on the 41.7% of divorces among the 2000s cohort with *no* pension splits. Supplementary analyses (see Table 15, appendix) show that there are strong compositional differences among divorces where pension assets are split and divorces without pension splits. Compared to the former, in latter divorces alimony is less frequent, wives have lower and husbands higher incomes, wives and husbands had less continuous employment trajectories prior to the divorce judgment, wives more often were self-employed, husbands are younger, there are more cases where either of the spouses or only the wife held a Swiss citizenship before marriage, more cases where the reference person lived in a rural area than in a city, more cases from Zurich and Leman region as compared to other regions and more childless couples. To assess the extent to which alimony has declined among couples with such characteristics, I rebalance the 1990s cohort to match the characteristics of divorces in the 2000s cohort with no pension split[28] (see Table 16).

Table 14. Proportion of divorces with alimony awards among divorces without pension splits

Cohort	Proportion with alimony, as observed	Proportion with alimony, 1990s cohort at covariate distribution of 2000s cohort without pension splits
1990s	0.52	0.39
2000s, without pension splits	0.15	0.15

Compared to the overall cohorts, the level of alimony is lower among those divorces with no *expected* pension splits in both cohorts (2000s: 15% vs. 33%; 1990s: 39% vs. 52%). Because the difference is greater in the later cohort, I derive that the decline in alimony awards was steeper in the subgroup of divorces with no *expected* pension splits than in the total population (a reduction of 24 percentage

[28] To attain balance in distributions, I adjust means, variances and skewness using entropy balancing generated weights (Hainmueller 2012).

points versus a reduction of 18 percentage points). This evidence is in line with an interpretation which suggests that other changes than the introduction of pension splits – such as changes in norms that guide alimony negotiations – caused the decline in alimony.

8.7. Discussion and conclusions

Under the condition of great economic inequality among married couples, adult alimony is a key means of ensuring the economic security of divorcees. As the gender revolution unfolded in Western countries, marriages became less unequal with wives earning greater incomes and husbands contributing more to domestic tasks (Hochschild and Machung 2012). From this view, a main driver of the decrease in alimony awards were changed levels of economic resources and needs among divorcing spouses. However, along with research into the determinants of alimony (Doriat-Duban and Bourreau-Dubois 2012; Ellman and Braver 2012; Oldham 2017; Starnes 2011), in this study I argued that a paucity of formal regulations allowed changes in marital norms to additionally spur the decline in alimony. Focusing on the period around the abolition of fault-based divorce in 2000 in Switzerland, this study therefore tested *to what extent* the decline in adult alimony between 1990 and 2008 can be explained with changes in wives' incomes prior to divorce judgments and with the reduction of unequal child custody arrangements.

The results show that adult alimony has become significantly less frequent in the study context: while for divorces enacted in 1990, wives were awarded alimony in more than every second divorce, this share has sunken to one divorce in three in 2008. Also, compared to the earlier divorce cohort, wives in the later cohort earned higher incomes in the years before judgments. The introduction of shared legal custody in 2000 has coincided with a steep reduction of the share of divorced women who were attributed sole legal custody over children. Furthermore, couple incomes and child custody arrangements are strong predictors of adult alimony in both periods. Yet, wives' higher incomes and more egalitarian custody arrangements can explain the decline in alimony only to a (very) limited extent. Together, changes in wives' incomes and child custody allocations account for only 13% of the observed decline in the probability of alimony awards.

An additional regulation that was implemented in the study period and that reduced economic gender inequality were occupational pension splits, which became possible in 1995 and mandatory in 2000. In consequence, pension asset were equalized between divorcing spouses in 58% of all divorces enacted in 2006 to 2008. Because most of the decline in alimony awards happened just right after the introduction of occupational pension splits in 1995, reduced inequality in pension wealth thus seemed a likely explanation of the lowered levels of alimony. The data available in this study did not include information on the distribution of pension wealth or other assets. This prevented a direct test of the

role changes in wealth inequality for the decline in alimony. However, a robustness analysis of the decline in alimony among divorces where I could not *expect* pension splits revealed that the introduction of pension splits are not sufficient to explain the decline in alimony awards either. In fact, among the subgroup of divorces without pension splits, the decline was even stronger than in the total population.

In sum, my analyses confirm the view that changing marital norms underlying the determination of adult alimony were more important drivers of the decline in alimony awards than greater objective economic equality among divorced spouses. The decline in alimony thus *outpaced* the gender revolution.

On one hand, such trend had consequences for divorced women's economic well-being. For those divorced women who benefited from pension splits, old age pension incomes have improved over time. Yet, the reduction in alimony awards has reduced the average household incomes of *all* divorced women *until* they reach retirement age. This makes declining alimony a potential explanation of their high levels of public benefit take-up. Such concerns are limited because the increase of the negative coefficient of wives' income and the positive effect of husbands' incomes across cohorts indicates that the decline in alimony was less steep among low income women with husbands who could support them (also see Figure 9, appendix). Nevertheless, on this backdrop, a first suggested avenue for future research is to explicitly test whether or not insufficient levels of private support payments from ex-husbands can be linked to divorced women's welfare benefit receipt (cf. chapter 5 of this thesis).

On the other hand, the results fit in with the predictions of the deinstitutionalization of marriage hypothesis (Cherlin 2004). The divorce law revision weakened the institutional understanding of marriage. This implied a lowering of the norm that husbands have formal responsibility for their wives' economic security, which has undermined argumentation in favor of alimony. Descriptions of Swiss divorce law practice after the change of divorce law indicate that, just like in other contexts, "clean breaks" and "economic independence" have become more important hallmarks in alimony negotiation (Büchler and Cottier 2012, pp. 191–201). Hence, strong social expectations on the economic obligations resulting from the marital contract were replaced by a greater emphasis on emotionally fair outcomes (Crowley 2016; Singer 2009) – in line with a companionate view of marriage - as well as a greater consideration of the individual consequences of divorce settlements – in line with an individualistic model of marriage. A second suggestion for future research is to explicitly examine whether the companionate or the individualistic model of marriage are now more dominant in alimony negotiations. In either case, as of now, it is clear that the formal marital contract *per se* is less of an

argument for alimony. This supports calls for an extension of the alimony system to informal unions (Jeandidier 2017).

8.8. Appendix: Outpacing the Gender Revolution? Economic Gender Equality, the Deinstitutionalization of Marriage and the Decline of Adult Alimony after Divorce

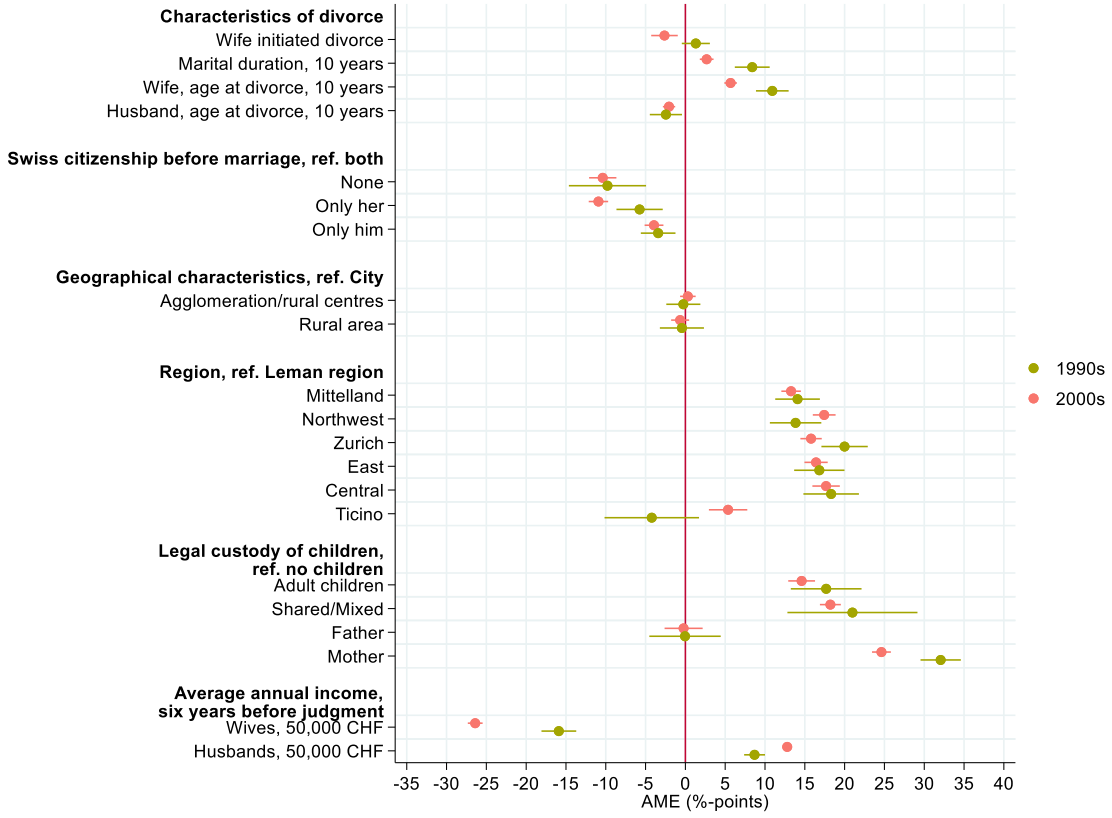


Figure 7. Average marginal effects (AME) and 95% confidence intervals on the probability of alimony awards (full model). Based on separate logistic regression models for divorces 1990-1992 (1990s) and 2006-2008 (2000s).

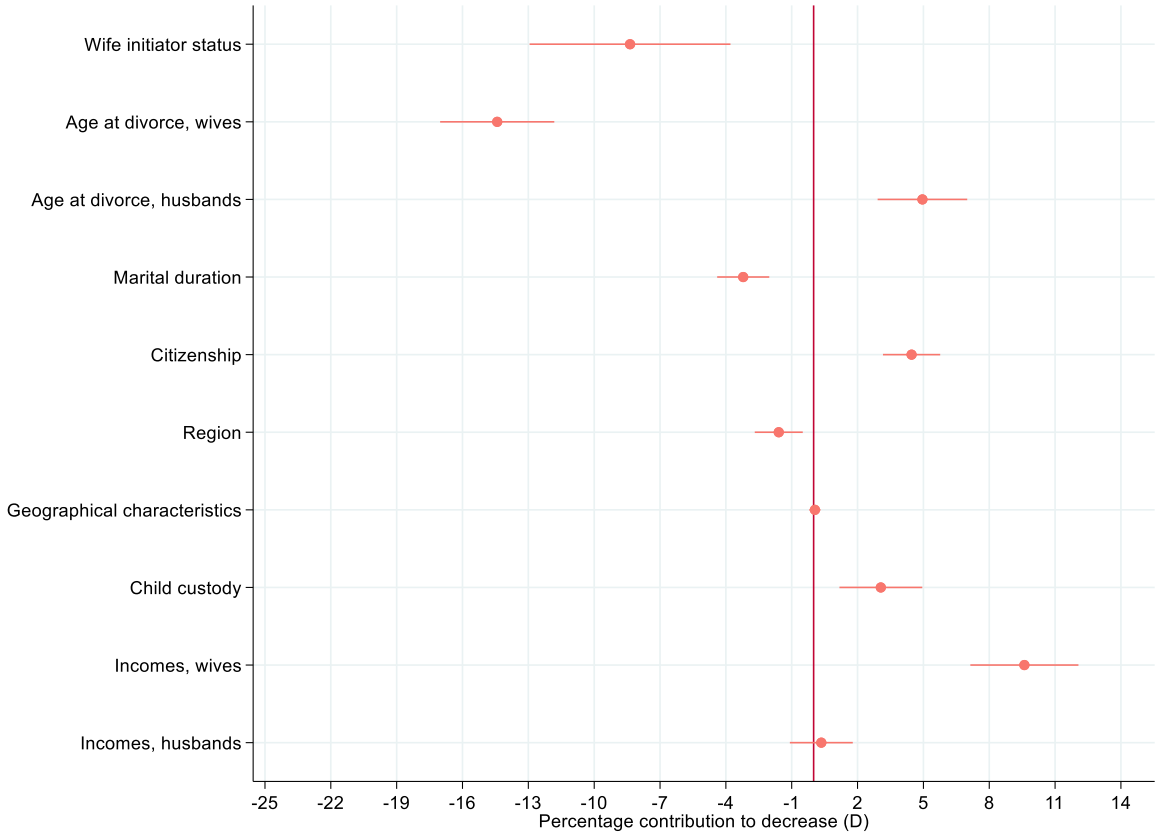


Figure 8. Percentage contribution to decrease (D) of changes in endowments and 95% confidence intervals, detailed decomposition. Based on logit models for divorces 1990-1992 (1990s) vs. 2006-2008 (2000s). Weighted results.

Table 15. Average marginal effects of logistic regression model predicting the splitting of pension assets at divorce, all divorces enacted in Switzerland between 2006 and 2008

	(1)
Alimony: husband to wife	0.127***
	(0.00547)
Marital duration, 10 years	0.0668***
	(0.00466)
Wife, age at divorce, 10 years	-0.00355
	(0.00417)
Husband, age at divorce, 10 years	-0.0184***
	(0.00385)
Both Swiss before marriage	0
	(.)
Neither	-0.0327***
	(0.00884)
Only her	-0.0332***
	(0.00661)
Only him	-0.00566
	(0.00647)
City	0
	(.)
Agglomeration/rural centres	-0.00206
	(0.00565)
Rural area	-0.0199**
	(0.00666)
Leman region	0
	(.)
Mittelland	0.0350***
	(0.00678)
Northwest	0.0183*
	(0.00788)
Zurich	-0.0282***
	(0.00718)

East	0.0832***
	(0.00808)
Central	0.0483***
	(0.00953)
Ticino	0.0203
	(0.0123)
No children	0
	(.)
Adult children	0.0532***
	(0.00973)
Shared/mixed custody	0.132***
	(0.00733)
Father sole custody	0.131***
	(0.0159)
Mother sole custody	0.133***
	(0.00629)
Income (avg. 6 years before judgment), 50,000, wife	-0.0810***
	(0.00526)
Income (avg. 6 years before judgment), 50,000, husband	0.135***
	(0.00320)
Share of months employed (6 years before judgment), wife	0.0411***
	(0.00589)
Share of months employed (6 years before judgment), husband	0.125***
	(0.00632)
Self-employed (month before judgment), wife	-0.0847**
	(0.0268)
Self-employed (month before judgment), husband	0.0319
	(0.0286)
Observations	38468

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

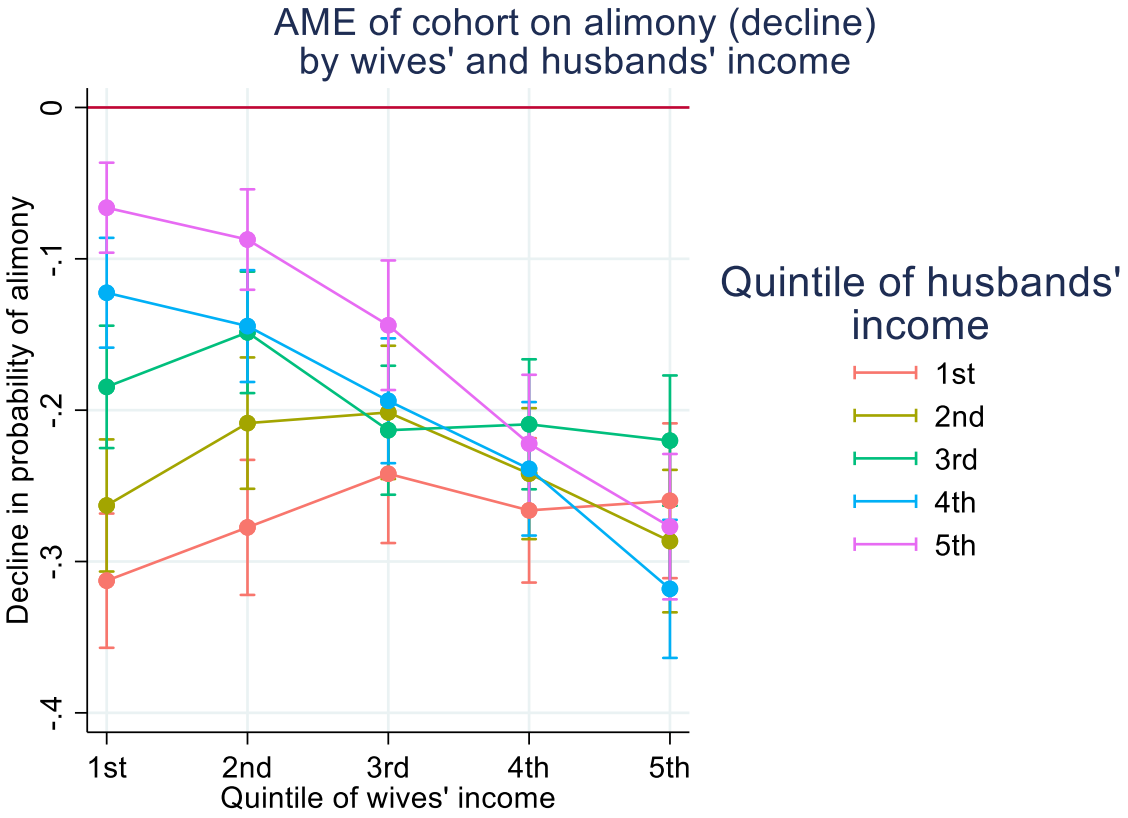
Table 16. 2000s cohort without pension splits vs. 1990s cohort, before and after application of entropy balancing generated weights

	2000s cohort, without pension splits			1990s cohort, all, unweighted			1990s cohort, all, entropy balance weights		
	mean	variance	skewness	mean	variance	skewness	mean	variance	skewness
Marital duration (10 years)	1.07	0.71	1.28	1.10	0.68	0.81	1.07	0.71	1.28
Age at divorce (10 years), wife	3.94	0.93	0.30	3.65	0.68	0.41	3.94	0.93	0.30
Age at divorce (10 years), husband	4.20	1.03	0.29	3.93	0.70	0.35	4.20	1.03	0.29
Swiss citizenship before marriage (ref. both)									
Neither	0.20	0.16	1.49	0.11	0.10	2.52	0.20	0.16	1.49
Only her	0.24	0.18	1.24	0.14	0.12	2.02	0.24	0.18	1.24
Only him	0.17	0.14	1.73	0.15	0.13	2.00	0.17	0.14	1.73
Geographical characteristics (ref. city)									
Agglomeration/rural centres	0.17	0.14	1.80	0.16	0.14	1.81	0.17	0.14	1.80
Rural area	0.12	0.10	2.38	0.10	0.09	2.59	0.12	0.10	2.38

Region (ref. Leman)									
Mittelland	0.22	0.17	1.38	0.21	0.16	1.45	0.22	0.17	1.38
Northwest	0.13	0.11	2.24	0.13	0.12	2.15	0.13	0.11	2.24
Zurich	0.23	0.18	1.30	0.22	0.17	1.38	0.23	0.18	1.30
East	0.10	0.09	2.74	0.13	0.11	2.23	0.10	0.09	2.74
Central	0.06	0.06	3.66	0.06	0.06	3.58	0.06	0.06	3.66
Ticino	0.04	0.04	4.41	0.04	0.04	4.83	0.04	0.04	4.41
Custody (ref. no children)									
Adult children	0.10	0.09	2.68	0.16	0.13	1.89	0.10	0.09	2.68
Shared/Mixed	0.10	0.09	2.67	0.01	0.01	10.27	0.10	0.09	2.67
Father only	0.02	0.02	7.87	0.04	0.04	4.88	0.02	0.02	7.86
Mother only	0.21	0.17	1.39	0.41	0.24	0.36	0.21	0.17	1.39
Income (avg. 6 years before judgment), 50,000, wife	0.62	0.26	0.80	0.49	0.20	1.06	0.62	0.26	0.80
Income (avg. 6 years before judgment), 50,000, husband	0.89	0.58	1.56	1.26	0.54	1.05	0.89	0.58	1.56
Share of months employed (6	0.74	0.19	-1.10	0.79	0.16	-1.45	0.74	0.19	-1.10

years before judgment), wife									
Share of months employed (6 years before judgment), husband	0.70	0.21	-0.89	0.92	0.07	-3.11	0.70	0.21	-0.89
Self-employed (month before judgment), wife	0.05	0.05	4.11	0.04	0.04	4.72	0.05	0.05	4.11
Self-employed (month before judgment), husband	0.04	0.04	4.92	0.04	0.03	4.97	0.04	0.04	4.93

Figure 9. *Decline in alimony between the 1990s and the 2000s cohort by wives' and husbands' income. Based on pooled logit model controlled for husbands income, marital duration, age of wife and husband, citizenship before marriage, geographical characteristics and region.*



9. Clean Breaks at Public Cost? His Earnings and the Effect of Marital Separation on Her Social Assistance Take-up

Together with Gina Potarca (gina.potarca@unige.ch) and Laura Bernardi (laura.bernardi@unil.ch)

9.1. Introduction

For four decades now, scholarly literature on the economic consequences of divorce has consistently concluded that women in most Western countries have been experiencing losses in economic well-being as a result of divorce (Bröckel and Andreß 2015; DiPrete and McManus 2000; Döring and Hauser 1989; Hauser et al. 2016; Hoffman 1977; Holden and Smock 1991; McKeever and Wolfinger 2006; Smock, Manning, and Gupta 1999; Tach and Eads 2015; de Vaus et al. 2017). Welfare transfers are effective means of alleviating divorced women's economic hardship (Aassve et al. 2007; Andreß et al. 2006; Uunk 2004). At the same time, however, they make up a large part of the total cost of divorce that accrues to the state. Empirical research has paid considerable attention to women's employment and earnings before and after separation (van Damme 2010; Herbst and Kaplan 2016; Özcan and Breen 2012; Raz-Yurovich 2013; Tamborini, Couch, and Reznik 2015) and has acknowledged its positive role for women's economic adjustment after divorce (Jansen, Mortelmans, and Snoeckx 2009). However, in the frequent situation where women earn too little to support themselves in the wake of a divorce, it is mostly ex-spouses' private transfers (henceforth referred to as alimony) that prevent them from recurring to government transfers and such mechanism has received only scant attention in empirical family research (Shehan et al. 2002).

In some form or another, Western welfare states follow the *principle of subsidiarity* and *regulations governing alimony* in determining the share of private and public transfers after divorce. *Subsidiarity* defends the idea that political and economic responsibility should be allocated to the lowest possible unit (Evans and Zimmermann 2014; Huber, Ragin, and Stephens 1993). It requires that public transfers are *not* issued to a divorced individual in economic need if her or his former spouse *could* provide financial assistance. *Alimony regulations* determine eligibility to alimony payments, and, by extension, the upholding of the principle of subsidiarity. Only under the condition that a divorced individual in need is *not* eligible for alimony, should the principle of subsidiarity be relaxed, and public transfers be paid out despite the presence of a sufficiently solvent former partner.

Recent international evidence suggests that private transfers between ex-spouses – which, in the vast majority of cases, flow from men to women - have been declining (for Germany see: Bröckel and Andreß 2015; for the US see: Crowley 2017; McMullen 2014; Meyer, Cancian, and Chen 2015; Tach and Eads 2015)[29]. Such declines partly occurred against the background of women's decreasing eligibility for alimony and child support payments - e.g., due to their increased participation in the labor market and changes in children custody arrangements (Cancian et al. 2014; Meyer, Cancian, and Chen 2015). Increasing women's economic independence also provided the backdrop for raising social and institutional support for "clean breaks" (Bröckel and Andreß 2015; McMullen 2014; Berghahn 2004), that is for divorce arrangements that exempt both parties from requesting financial support from each other. This paradigm shift was also advocated with the hope of reducing litigations between ex-spouses and facilitating psychological adjustment to divorce (Crowley 2016, 2017; Cunha 2016; McVeigh 2017).

Yet, German evidence shows that divorced women's dependence on government transfers has also risen over the last decades (Bröckel and Andreß 2015). Decreasing private transfers and increasing reliance on welfare benefits suggest the possibility that there has been a shift of responsibility for divorced women's economic well-being from former husbands to the public. Given such changes, the question arises of whether today part of women's welfare dependency related to marital separation is due to violations of the principle of subsidiarity. Evading spousal transfers at the expense of the state is not only problematic because it places an avoidable burden on the welfare system, but also because it makes men less accountable for marital exits, increases women's risk of falling into the poverty trap and intensifies already existent inequalities between former spouses (T. Leopold 2016).

Making use of uniquely tailored Swiss administrative data on social assistance[30] (SA) take-up and couple earnings after marital separation, this study tests the hypothesis that subsidiarity is disregarded and correspondingly asks a) *does marital separation increase women's SA take-up, b) does the effect persist independently of their ex-husbands' earnings, and c) can patterns a) and b) be observed for women who are eligible for alimony*? To answer these questions, we study the association between ex-husbands' earnings and the effect of marital separation on women taking up SA. We consider that the principle of subsidiarity is violated when separation causes women that would in fact be eligible for alimony to have a heightened probability of SA receipt, and if this holds irrespective of the level of

[29] Evidence of a decline of private transfers in the US is clear with respect to adult alimony but mixed in terms of child support payments. A Wisconsin study finds reductions in child support orders (Meyer et al. 2015), while national studies show increases in absolute levels of received child support payments reported by divorced mothers (Tach and Eads 2015).

[30] In Switzerland, SA is a means-tested social benefit for the working-age population and represents the financial safety net of last resort.

husbands' earnings. We define women as eligible for alimony using two criteria derived from alimony theory (Landes 1978; Starnes 2011; Oster 1987; Jeandidier and Lim 2015): if marriage has caused great inequality in a couple's life-time earnings, or if the couple has child care duties at the moment of separation.

Our research expands the literature on the economic consequences of divorce in significant ways. First, our paper is among the first to investigate the indirect consequences of "clean breaks" on SA take up (cf. Bredtmann and Vonnahme 2017). By exposing violations of the principle of subsidiarity, it can indicate whether part of the cost of divorce borne by public funds is avoidable (e.g., by readjusting private transfer policies), or whether other measures (e.g. strengthening women's earnings) are better placed to efficiently reduce post-divorce SA take-up. Second, comparable to the US, Switzerland is a context where public transfers account for a relatively small proportion of divorced women's household incomes, but private transfers remain relatively important (de Vaus et al. 2017). More widely, Swiss data on the role of post-divorce private transfers in reducing public assistance is informative also for contexts where public transfers are more prevalent and where similar concerns of clean breaks occurring at public costs emerge. Ultimately, given our substantial sample size, we are better able to delve into the consequences of divorce for women with scarce economic resources and a high potential of transfer dependency. Such women are mostly under-represented in conventional panel studies, which thus miss to fully comprehend processes of cumulative disadvantage (Vandecasteele 2011; L. Leopold and Leopold 2016). Together with its long-term longitudinal data structure, our study thus responds to recent calls to tap into the potential of administrative data for research on the intersection between life-course risks and welfare state functioning (Connelly et al. 2016; O'Hara, Shattuck, and Goerge 2017).

9.2. Private and public transfers after divorce

As previously noted, the relative significance of private and public transfers after divorce is determined by both the *principle of subsidiarity* and *alimony regulations.* In questions of material livelihood, subsidiarity stipulates that if individuals are unable to make ends meet on their own, they should *only* receive public benefits if there are no family members who could provide financial assistance. Therefore, in the event of divorce, means-tested social benefit schemes – such as SA in Switzerland - assess whether ex-partners can be made to pay before allowing benefits.

However, regulations on alimony define situations where the principle of subsidiarity should be relaxed, that is, where an ex-partner should not be considered as belonging to the group of people who can be held responsible for a divorcee's livelihood. In this case, benefits could be paid out despite the presence of an ex-partner who *could* provide financial assistance. The legal theory literature

(Starnes 2011; Oster 1987; Jeandidier and Lim 2015; Landes 1978) has enumerated several basic principles motivating transfer payments between ex-spouses. In the following, we outline two of the most notoriously discussed compensation guidelines that allow one to contrast couples for whom alimony should be high (and the principle of subsidiarity met) from couples for whom alimony should be absent (and the principle of subsidiarity relaxed): *marriage-related economic gains and losses,* and *child care status*. In the following, we develop alimony eligibility criteria for both principles.

9.2.1. Compensation of marriage-related economic gains and losses

The main assumption carried forward by "the marriage-related economic gains and losses" principle of alimony is the idea that marriage, and especially marriage combined with parenthood, causes one spouse to have greater and the other more restricted career development (Doriat-Duban and Bourreau-Dubois 2012; Jeandidier and Lim 2015; Landes 1978; Oster 1987; Starnes 2011). The underlying processes are described by economic theories on the intersection between specialization and human capital accumulation (Becker 1985). After union formation, the partner with the more advantageous position in the labor market – in most cases the husband - invests larger amounts of time and resources to work, while the other partner - usually the wife – invests more time in caregiving and housework. Because children often initially decrease women's economic productivity and increase the amount of domestic tasks a couple has to accomplish, the potential benefits of specialization likewise increase, making parenthood an important driver of gendered role differentiation within couples (Budig and England 2001; Le Goff and Levy 2017; Killewald and García-Manglano 2016). Specialization increases the functional efficacy of the couple's household during marriage creating gender inequality in employment histories and human capital (Becker 1985). After a divorce, men's earning potential is higher than if they would have remained single while women's earning potential is lower (Cheng 2016).

Alimony can be justified in terms of distributional justice (Oster 1987). The primary argument is straightforward: without alimony, marriage-related economic gains after separation would fall fully upon the partner specializing in market work, while the economic losses would fall upon the economically weaker partner. Another argument for alimony refers to its behavioral implications. The appeal of specializing in caregiving and housework is crucially linked to continuous income sharing, and is feasible, even advantageous, if the couple shares one household. In contexts where divorce is widespread, it is less likely that the partner who specializes in domestic tasks would have done so without the safety blanket of alimony in the event of a divorce. Therefore, alimony is recognized as an instrument that encourages specialization, and, by that, the optimal resources allocation within marriages (Landes 1978). Both arguments entail that the more couple members specialize after marriage, the more alimony payments should be awarded frequently, and set at greater levels and for

longer durations. Following this idea, our first criterion of marriage-related economic gains and losses is the extent to which the husband and wife of a given couple would be more equal in terms of their earnings histories than they are, had they remained unmarried and had they not had any common children.

9.2.2. Compensation of inequalities related to post-separation child care

The second central set of arguments for alimony payments is related to post-separation inequalities in child care. On the one hand, child physical custody moderates the economic effects of divorce by altering living expenditures. Marital separation leads to increased living costs for the couple taken together, given the reduced economies of scale related to the costs of two households instead of one (Andreß and Hummelsheim 2009). However, as children mostly reside with the mother after divorce (Cancian et al. 2014), the effects of divorce on living expenditures are usually higher for women (Bröckel and Andreß 2015). Hence, in these cases, alimony payments for children are justified to ameliorate an unequal distribution of children's living costs after separation. Child support schemes often provide rigid guidelines concerning compensation of children's living cost (Cancian and Meyer 2018). Moreover, because child care obligations restrict the time women can allocate for paid work, divorced women with children are less likely to re-enter the workforce or to increase their working hours and earnings if they are already employed (van Damme 2010; Herbst and Kaplan 2016). Such views, in short, declare that economic transfers from husbands to wives – both child and adult alimony – are much more justified when there are more children and when these children impose more time restrictions on the mother.

9.2.3. The decline in alimony

This article parts from the observation that alimony is on the decline. Explanations of this trend usually refer to two sources of change. First, the decline in alimony is linked to changes in divorcees' composition (Bröckel and Andreß 2015; McMullen 2014; Meyer, Cancian, and Chen 2015; Oster 1987). Increasingly fewer women meet the criteria that make them eligible for alimony payments. A central component of compositional change is the lesser impact marriage has had on women's careers (Tach and Eads 2015). Also, the weight of inequality in post-separation childcare in alimony agreements has decreased. This can be related to the sheer decline in the number of divorces that include minor children, which corresponds to a rise of divorce rates among older couples with major children (Brown and Lin 2012). The increased involvement of fathers in child care and physical custody after separation could likewise have fostered reductions in child support payments (Meyer, Cancian, and Chen 2015). Second, the decline in alimony is explained by means of political changes. Rulings that cut alimony eligibility were motivated by both economic and non-economic arguments. Because payers can reduce their obligations by reducing their own earnings, and payees have a lesser need to increase their own

earnings than they would without alimony, alimony is believed to lower divorcees' labor supply (Bredtmann and Vonnahme 2017; Cancian, Heinrich, and Chung 2013; Chiappori et al. 2017; Covizzi 2008). This undesirable economic side-effect has fed criticism of alimony. Anti-alimony movements have additionally claimed that alimony hinders spouses' adaptation to divorce, arguing that payments prolong spouses' marital roles, which hinders them in adapting to their new lives and leaves them not only economically but also psychologically tied to their ex-spouses (Crowley 2016, 2017).

The available empirical evidence on alimony trends paints a relatively unambiguous picture (Crowley 2016, 2017; McMullen 2014). In absolute terms, the number of US women receiving support payments between 1994 and 2013 declined 17.5% (Crowley 2017). In a Wisconsin sample, the share of divorce settlements ordering alimony has been estimated to have dropped from 21% in 1978 to 9% in 2005 (McMullen 2014). The sole evidence in favor of a relatively constant role of private transfers are those paid to women with children: while the number of child support orders decreased (Meyer, Cancian, and Chen 2015), their absolute size in the immediate aftermath of divorce has climbed to some extent (Tach and Eads 2015). In Germany, men's economic burden stemming from spousal transfers after separation has decreased. While private transfers raised the probability of a post-tax income loss for men as a result of divorce from 41.2% to 57.3% in the 1980s and the 1990s, its effect has been substantially reduced to an increase from 45.7% to 51.5% for recent separations (Bröckel and Andreß 2015). In Switzerland, where private transfers make-up a relatively important part of women's post-separation household incomes (de Vaus et al. 2017), the share of divorce decrees ordering spousal alimony has declined as well. The probability that a woman with two or more children is granted adult alimony in a divorce trial has declined from a high of 76% in 1995 to 48% in 2008 (BFS (Federal Statistical Office) 2018c). In sum, international trends in divorce law practice point towards a rise in "clean breaks", that is, divorce agreements in which former spouses are exempted from economic obligations towards each other that last beyond the union.

9.3. Hypotheses

Two pieces of evidence support the assumption that there has been a shift in the composition of the household income of divorced women from private to public transfers. For one, paradigmatic changes in alimony law did not have the hoped-for impact on women's economic self-sufficiency. In contradiction to economic theory, Bredtmann and Vonnahme (2017) show that the cuts in alimony eligibility in 2008 in Germany did not increase women's labor supply. Rather, the share of government transfers in divorced women's household incomes has increased in recent decades (Bröckel and Andreß 2015; Tach and Eads 2015). It seems reasonable to assume that decreases in alimony created conditions where women must recur to SA after divorce despite having former partners who could

provide material assistance. The question then is: Do women nowadays take-up social assistance after marital separation in Switzerland because the principle of subsidiarity is being violated?

As laid out in our theoretical framework, verifying compliance with the principle of subsidiarity requires taking two pieces of information into account. First, we need to consider the association between ex-husbands' earnings and the effect of separation on women's social assistance take-up. If the *principle of subsidiarity holds*, we shall observe a negative statistical relationship: women whose ex-husbands earn little are more at risk of entering SA than women whose ex-husbands have high incomes, since the latter can rely on greater monetary and in-kind private transfers. Because the influence of husbands' earnings on the size of paid transfers is likely to follow a non-linear pattern, we expect that this relationship is staggered. Up to a certain level of income, husbands cannot make any transfer payments. Transfers thus begin to rise only after this level of husbands' earnings has been reached, and only then do we expect the risk of SA to start declining. Most importantly, we expect that the effect of marital separation on women's SA take-up vanishes after a certain earnings level of their husbands. Conversely, if the *principle of subsidiarity is violated*, we should observe that a higher ex-partner income does not reduce and eventually eliminate the influence of marital separation on the risk of SA receipt. In other words, even women whose husbands earn high incomes experience a substantially increased risk of taking-up SA due to marital separation.

Second, since the principle of subsidiarity should be relaxed for women who do not qualify for alimony, we must consider *information on whether women are eligible for alimony*. We calculate women's alimony eligibility by referring to the above-outlined criteria. A woman is eligible for alimony if she would have earned a life-time income much more like that of her ex-partner if they had never married or never had a child together, *or* if she has an underage child from her ex-partner. In sum, we only speak of violations of the principle of subsidiarity if a) marital separation causes women to have a heightened risk of SA take-up, b) if this effect persists across the distribution of husbands' earnings *and* c) if this holds for women who are eligible for alimony.

9.4. Data and Methodology

9.4.1. Sample and data

The study draws on data from respondents to the Swiss Labor Force Survey (SLFS) who participated at least once between 2002 and 2014[31] (BFS (Federal Statistical Office) 2018a), of whom we selected a subsample of divorcees by using administrative information on civil status changes from the statistics

[31] The average survey year of the sample is 2009. Descriptive analyses make use of survey weights standardized to annual SLFS sample sizes.

on natural movements of the population (BEVNAT, BFS (Federal Statistical Office) 2018c). BEVNAT provided the social security identification numbers of ex-partners of SLFS respondents who divorced in 2011 or later. In total, we identified 7,185 cases of couples where one of the partners participated in the SLFS and the legal divorce was enacted between January 2011 and December 2015.

For 7,008 couples within this subsample, we could identify administrative information on earnings and SA take-up for both spouses. Earnings are measured through individual accounts from the Central Compensation Office. This data covers all market incomes made by wives and husbands between January 1982 and December 2014, including earnings from paid employment and self-employment[32]. To correct for secular trends in wages and prices, earnings have been adjusted to December 2015 price levels. Information on SA has been retrieved and merged to the dataset from individual-level records of the Swiss Social Assistance Statistics 2005-2014 (BFS (Federal Statistical Office) 2017).

Because the economic consequences of divorce essentially emerge with the breakup of a household and not with the legal enactment of the divorce, the base sample was enriched with individual level information on address registrations within municipalities (see below for definition of marital separation). This data was drawn from the Population and Households Statistics (STATPOP, BFS (Federal Statistical Office) 2018b). We deleted from our sample couples for whom a) no separation date could be identified, b) separation dates did not fall between 2009 and 2015 (to reduce measurement errors[33]), c) no premarital earnings were observed (i.e. couples who married before 1983) and d) separation occurred after the woman's retirement age[34] (because SA allowances are restricted to the working-age population). Figure 1 displays the process of data linkage and sample construction and respective changes in sample sizes. We ended up with a final sample of 3,421 couples.

[32] Annual earnings below CHF 2,300 are not included.

[33] STATPOP includes information on the last date of address registration as of December 2010 and all dates of address registration between January 2011 and December 2015. To have a plausible range of differences between separation and divorce dates, we restrict our sample to couples who separated in 2009 or later, capping the distribution of divergence between separation and divorce dates at 6 years (separation date 2009, divorce date 2015). Robustness checks show that the effect of separation on social assistance take-up is slightly reduced by including earlier separations but is not increased when restricting the sample to later years, pointing to greater measurement error among cases with separation dates prior to 2009.

[34] Women above the age of 63.

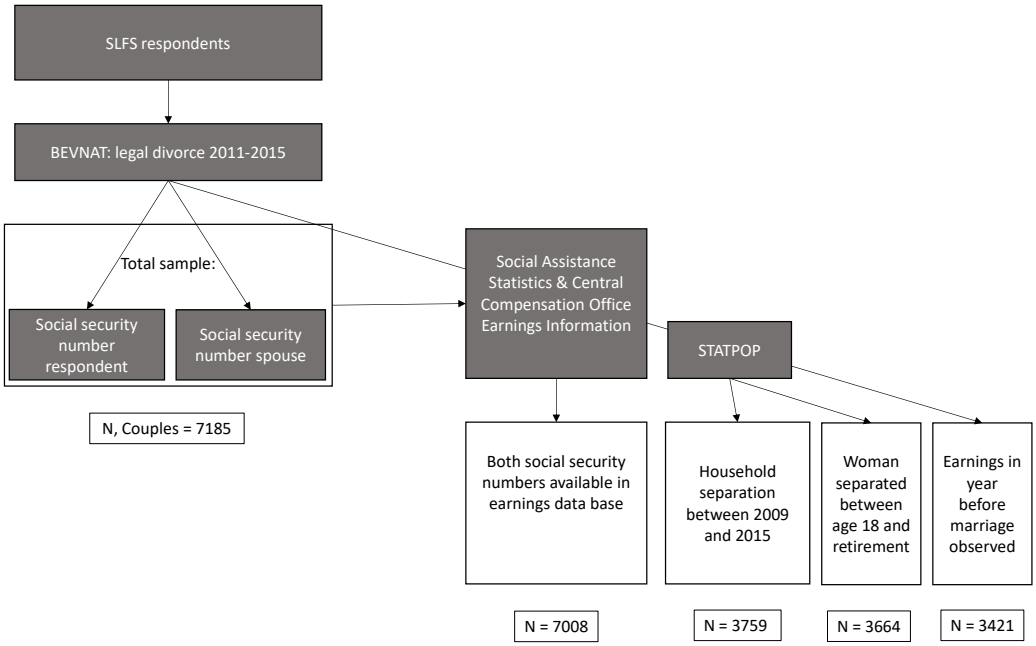


Figure 10. Data linkage and sample construction.

9.4.2. Sample description

Table 17 gives an overview of our dependent, independent, moderator and control variables and their distributions. In addition, it provides a detailed description of the relevant processes affecting our sample in the period surrounding separation using additional information reported in the SLFS.

9.4.2.1. Women's SA receipt

To measure SA receipt, we use a binary indicator describing whether a woman has received any monetary SA from the municipality in each year. Despite women's increases in labor market participation, working hours and earnings at the time of marital separation, they experience a fourfold increase in the risk of receiving *SA* during the period from the calendar year before separation to the calendar year after separation. Husbands' risk of SA receipt, too, increases in this period, although at a substantially lower rate (cf. Table 17, Social assistance).

9.4.2.2. Marital separation

The date of separation is defined as the first day after marriage that one of the spouses is registered at a new address without the other changing address on the same day and to the same municipality. SLFS data on household structure suggests that address registration does a relatively satisfying job of measuring *marital separation*. While in the calendar year before the date of their separation 84% of the female respondents surveyed in that year reported cohabiting with a spouse, in the calendar year

after separation 80% reported living without a partner, 5% with an unmarried cohabiting partner and 15% with a married partner[35] (cf. Table 17, Dependent children).

9.4.2.3. Husbands' earnings

The lower economic risks that men incur in compared to women after separation can be related to their *relatively higher earnings*. In the calendar year after separation, ex-husbands in the lowest quartile of the earnings distribution earned an average annual income of 33,602, followed by 69,905 for those in the second quartile, 93,093 for those in the third, and 161,181 Swiss francs for those in the highest quartile. We use quartile adherence (defined by the distribution of non-zero earnings by husbands in each year as well as an additional category for zero-earners) as an indicator of husbands' earnings (see section "Modeling strategy").

9.4.2.4. Women's economic resources

Because women's own economic resources are positively correlated with their husbands' earnings, the estimate of the impact on husbands' earnings must be corrected for women's economic resources. We measure women's economic resources by women's annual earnings, which in the year before separation averaged 45,108 CHF. Also, we use a proxy for women's wealth based on their cumulated life-time earnings (since 1982). Since without marital contracts specifying alternative distributions, the total wealth accumulated by the couple during the marriage is split in half at divorce, the wealth variable is augmented by half of the husband's cumulated earnings during the union, which leads to an average value of approximated wealth of 1.09 million CHF in the calendar year after separation. For both earnings and approximated wealth, we use quartile adherence (with zero values categorized into the lowest quartile).

9.4.2.5. Alimony criteria

Table 1 also contains information on the distribution of our measures of alimony eligibility. In the calendar year after separation, a women's life-time earnings amounted, on average, to 38 percent of a couple's sum of life-time earnings (since 1982). Our measure of *marriage-related economic gains and losses* is the difference between this observed share and the counterfactual share if the couple remained unmarried and if they had no children together. The counterfactual share is the predicted

[35] The 15 percent who reported living alone in the year before separation can be interpreted in terms of measurement error (actual separation was earlier), or in terms of a time lag between actual household breakup and registration to the new household after separation. This cannot be disentangled. The 15 percent who reported living with a married partner after separation can be interpreted in terms of measurement error (actual separation was later), or in terms of remarriage. Supplementary analyses using administrative data suggest that in the calendar year after separation, only 2.3% of women in our sample were remarried. Hence, around 13% of the women in our sample are thus wrongly coded as separated even though they still live with their husbands, which will lead to an underestimation of the effect of marital separation.

value of a random effects model predicting the women's share of the couple's life-time earnings when marriage, birth of the first common child and separation are set to have not happened yet. The model used for the prediction leans on Cheng's (2016) specification of the long-term effects of marriage on wages. It includes dummy variables of the years before and after marriage, interactions between these dummies and the wife's share in the couples' annual earnings in the year before marriage, age at marriage of husband and wife, citizenship of husband and wife, a dummy for single civil status before marriage of husband and wife, as well as year of marriage and controls for dummies capturing years since birth of youngest common child, dummies for years to separation, a continuous measure of years since first non-zero earnings (and a squared term of it, together capturing the influence of potential work experience) and observation year. On average, the counterfactual ratio is 46%, implying an 8-percentage point average differential to the observed situation. In our sample, marriage thus induced substantial inequality in couples' earnings histories.

We distinguish child care status by presence of at least one *child below age 15* in the calendar year after separation, which is the case for 45% of couples. This age threshold was chosen because a considerable portion of children leave school at age 15 and are believed to become less burdensome for the custodial parent in terms of time restrictions and financial support (as they start to contribute to the household income). Therefore, we argue that mothers either with no children or older children are less eligible for alimony payments than mothers with children under the age of 15. Among couples with a child in this age category, 84% of women and only 20% of men report cohabitation with a child in the calendar year after separation, which supports the underlying assumption of gender inequality in child physical custody after separation.

Table 17. Sample description around separation and time-constant characteristics

Wives' economic situation around separation		***Calendar year before separation***		***Calendar year after separation***	
Household structure[1]	No cohabiting partner	15		80	
	Unmarried cohabiting partner	1		5	
	Married cohabiting partner	84		15	
Economic activity	Share with non-zero earnings	80		82	
	Weekly hours if employed[1]	27	*(12)*	31	*(12)*
	Annual earnings if non-zero, CHF	45 108	*(34868)*	50 049	*(35184)*
Approximation of wealth	Cumulated life-time earnings, CHF[2]	1 041 029	*(763886)*	1 088 811	*(773474)*
Social assistance	At least one month of transfer payments	2		9	
Husbands' economic situation around separation					
Economic activity	Share with non-zero earnings	87		87	
	Weekly hours if employed[1]	42	*(8)*	43	*(10)*
	Annual earnings if non-zero, CHF, 1st quartile	33 602	*(17515)*	31 180	*(31180)*
	2st quartile	69 905	*(6139)*	71 735	*(17736)*
	3rd quartile	93 093	*(8204)*	97 118	*(7160)*
	4th quartile	161 181	*(78668)*	167 797	*(8451)*
Social assistance	At least one month of transfer payments	2		4	
Compensation criteria					
Marriage-related economic gains and losses	Wives' %-share of couple's total earnings, observed			38	*(31)*
	Counterfactual - observed share[3]			8	*(36)*
Child care status	At least one child below age 15			45	
	Among wives with child: share cohabiting with child[1]	99		84	
	Among husbands with child: share cohabiting with child[1]	84		20	
Other constant characteristics					
Year of separation	Calendar years		2 011	*(2)*	
Year of divorce			2 013	*(1)*	
		Wives		***Husbands***	
Age at marriage	years	29	*(7)*	32	*(8)*

Age at separation	years	39	*(8)*	42	*(9)*
Citizenship	Share non-swiss	24		23	
Educational attainment$_1$	Less than vocational degree	25		19	
	Vocational degree	43		39	
	General education	13		13	
	Higher vocational degree	6		13	
	Tertiary degree	13		16	

Notes: Reported are mean values (standard deviations in brackets) or percentage shares, both calculated using survey weights. General sample restrictions: separation dates between 2009 and 2015, divorce dates between 2011 and 2015, wives' age at separation between 18 and 63, at least one year of marriage. N=3421.
$_1$: Only for subsamples with survey information on husbands' education (2524) or wives' education (2652), wives' partnership status before separation (182), wives' partnership status after separation (192), wives' (153) and husbands' (143) activity levels before separation and wives' (158) and husband's (158) activity levels after separation, as well as the share of wives (105) and husbands (80) who cohabit with a child before separation and the share of wives (106) and husbands (88) who cohabit with a child after separation.
$_2$: Cumulated sum of annual sums of wives' earnings and, from the year of marriage to the year before separation, half of husbands' earnings.
$_3$: Counterfactual wives' share = predictions from random effects model on all couples with earnings information who separated between 2009 and 2014 (7008) if marriage and birth of child are set to lie four years ahead.

9.4.2.6. Control variables

Our analysis (see below) also considers several control variables. *Observation year* is included to capture secular trends in SA receipt, e.g., due to changes in eligibility criteria or the introduction of alternative transfers[36]. On average, the separations in our analytical sample took place in 2011, with an average lead time of two years to the legal divorce.

Age categories are included to capture processes of capital accumulation independent of earnings, e.g., *inheritance, donations or capital gains,* which are expected to reduce SA take-up. At separation, women average 40 years of age and husbands 43 years. Approximating economic support from social networks that is not reflected in earnings histories, to check for robustness, we include categorical variables for wives' highest educational attainment (see section "Potential biases and robustness checks"). Because women's highest educational attainment is only measured either if the wife was the survey respondent, or the husband was the survey respondent but was surveyed in the period when he was still cohabiting with his wife and delivered information on her educational attainment, such models controlling for educational attainment are based on a reduced sample (cf. Table 17).

9.4.3. Modeling strategy

All estimates of the effect of marital separation on wives' SA receipt are based on random effects linear probability models with annual observations from 2005 to 2014 nested in women, using heteroscedasticity robust standard errors (the design resembles the ones used by other recent studies

[36] The cantons of Geneva, Vaud and Solothurn (20% of the sample) introduced family subsidies during the study period, which reduced separated women's SA receipt (Baumgartner, Gautschi, and Ehrler 2014).

into the consequences of divorce, e.g. Couch, Tamborini, and Reznik 2015; L. Leopold and Leopold 2016). The effect of separation thus captures the difference in the probability of receiving SA between women who are observed before their separation versus women who are observed after their separation, as well as the difference in the probability of receiving SA between the observations of the same women before their separation and after their separation. Because our sample excludes both continuously married and single women, between-women estimates are not biased by unobserved differences between separating and non-separating women with respect to SA receipt. This makes the random effects specification, due to the greater variance it exploits, superior to a fixed-effects specification (Brüderl and Ludwig 2015).

Our base model includes all possible interactions between a dummy measuring whether the separation occurred in the observation year or before, husband's earnings quartile adherence, wife's earnings quartile adherence, wife's approximated wealth quartile adherence and controls for marital duration, alimony criteria (impact of marriage on inequality and presence of child below 15), age of husband and wife and observation year. To substantiate the direction and shape of the association between husbands' earnings and the effect of marital separation on wives' SA take-up, we report average marginal effects (AME) of separation when all observations are set to the first, second, third and fourth quartile of husbands' non-zero earnings while leaving the rest of covariates as observed. The usage of quartiles allows us to capture non-linearity in the association between husbands' earnings and wives' SA take-up due to separation. To account for the role that a woman's own economic resources play in her eligibility for SA, we perform separate AME calculations by the level of a woman's own economic resources, defined by earnings and wealth quartiles.

In the second group of models, we restrict our sample to women in the bottom quartile of women's own economic resources. This allows us to depict the interaction between husbands' earnings and alimony criteria for the instructive case of women who are highly prone to SA take-up. In these models of the restricted sample, we include all possible interaction terms between a separation dummy, wives' earnings (continuous), husbands' earnings (quartiles) and our measures of alimony eligibility. We calculate separate models for each measure of alimony eligibility: a first one including the counterfactual-observed-wife-share-difference and a second one including a time-varying dummy for the presence of a child under age 15. In each of these models, age of husband and wife, observation year as well as the other, non-interacted compensation criterion, figure as control variables in the model specification. AMEs of separation are then calculated by categories of husbands' earnings and by levels of alimony eligibility. Eligibility for alimony is represented by AMEs at a counterfactual-observed-wife-share-difference of 30% - the woman's share of the couple's life-time earnings would be 30 percentage points higher than observed if the couple had remained unmarried and had no child

together - and the presence of a child under 15. Ineligibility for alimony is represented by husbands'-earnings-specific AMEs at respective values set at 0%[37] - marriage did not coincide with increases in inequality between wives' and husbands' life-time earnings - and by absence of a common child under 15.

9.5. Results

9.5.1. The effect of separation on women's social assistance take-up and its interaction with husbands' earnings

Figure 2 visualizes the point estimates (and 95% confidence intervals) of the effect of separation on women's SA take-up (Y-axes) by quartiles of women's own earnings and (approximated) wealth (bottom quartiles in both dimensions are shown in the top left panel, top quartiles in both dimensions in the bottom right panel) and quartiles of husbands' earnings (X-axes). First, the results show that – irrespective of husbands' earnings - marital separation does not significantly increase the risk of SA take-up for women in the top half of their distribution of economic resources. The greatest part of the average increase in the risk of SA take-up is concentrated among the lower ranks of the distribution of women's earnings and wealth. For women who belong to the lowest quartile and whose husbands are bottom quartile earners (q1), separation leads to an average increase of 23.8 percentage points in the risk of SA take-up. The level of the effect is substantially reduced when switching to upper quartiles of husbands' earnings (q2, q3 and q4). More specifically, the comparison in the reduction of the effect when switching from q1 to q2 versus when switching from q2 to q3 supports our expectation of non-linearity. The decline when switching to the next higher quartile is significantly stronger at q2 than at q1 ($p<.05$), where ex-husbands cannot make any or only very small transfer payments. The most notable result with regards to our hypotheses is that although husbands' earnings strongly reduce the high SA risks after separation found for women with little own economic resources, the effect remains significant even when husbands' earnings are set to q4 (2.8 percentage points, $p<.05$).

[37] 0 represents the 17th percentile of the distribution and 30 percentage point difference the 90th percentile of the distribution of the counterfactual-observed difference in the wife's share of the couple's life-time earnings.

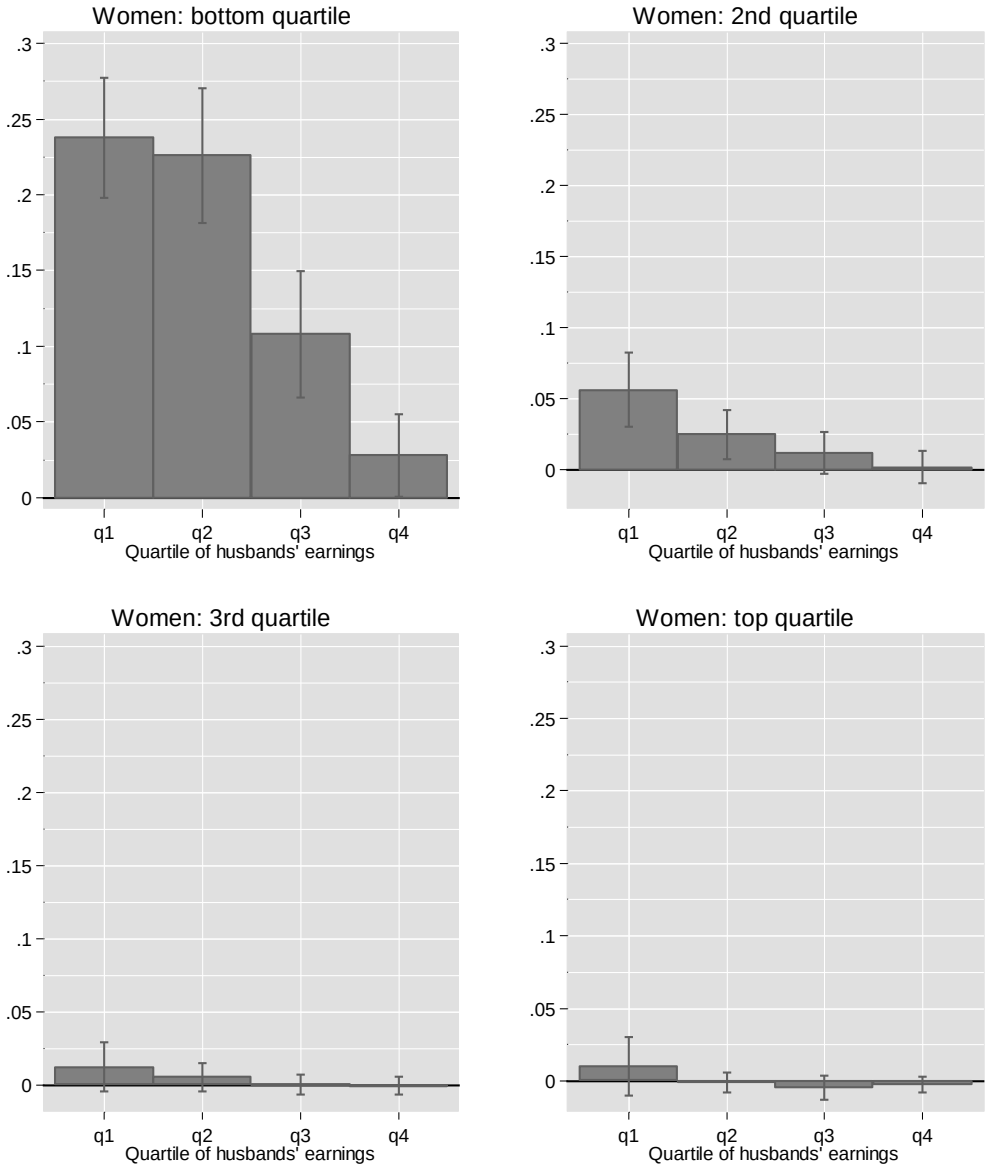


Figure 11. Average marginal effects of marital separations (and 95% confidence intervals) on women's social assistance receipt by husbands' earnings and women's economic resources (quartiles of earnings and wealth).

Notes: Predictions at observed distributions of age of woman, age of man, alimony criteria (counterfactual - observed wife share in life-time earnings, common child below 15 at separation) and observation year. N person-years = 33,988. Graph style adapted using grstyle (Jann 2017).

9.5.2. The role of alimony criteria

Does the reduction in the effect of separation on women's SA take-up by husbands' earnings hold for women who are eligible to alimony? Figure 3 shows AMEs of separation on women's risk of SA take-up by husbands' earnings, but now distinguishes between women who – according to our criteria – are eligible for alimony and women who are not eligible for alimony. Furthermore, the estimations are now based on restricted samples of women whose earnings and wealth belong to the lowest quartile, narrowing the focus to women who are highly prone to poverty and SA take-up. Estimates for women who are eligible for alimony are light-shaded, whereas estimates for women who are ineligible for alimony are dark-shaded.

The left-hand panel displays the comparison based on the criterion of marriage-related inequality in life-time earnings. We find mixed evidence for the view that alimony eligibility – defined by marriage-related inequality – strengthens compliance with the principle of subsidiarity. For couples whose earnings diverged strongly due to marriage, the effect of separation already becomes statistically non-significant at q3 (3.2 percentage points), whereas it remains highly significant (16 percentage points, $p<.001$) for couples for whom marriage had no impact on the level of inequality. The difference in the point estimates at q3 between the two groups ($p<.05$), as well as the difference in the reduction of the effect between q2 and q3 between the two groups, are statistically significant ($p<.05$)[38]. However, when switching to the top quartile, the effect of separation becomes statistically insignificant for both groups. The principle of subsidiarity thus not only holds for women from couples with large marriage-related inequalities, but also for women who exit marriages that did not lead to a divergence in earnings histories between the spouses.

[38] These significant tests must be interpreted with caution because they do not account for the uncertainty inherent to the measure of marriage-related earnings inequality that accrues from it being a prediction.

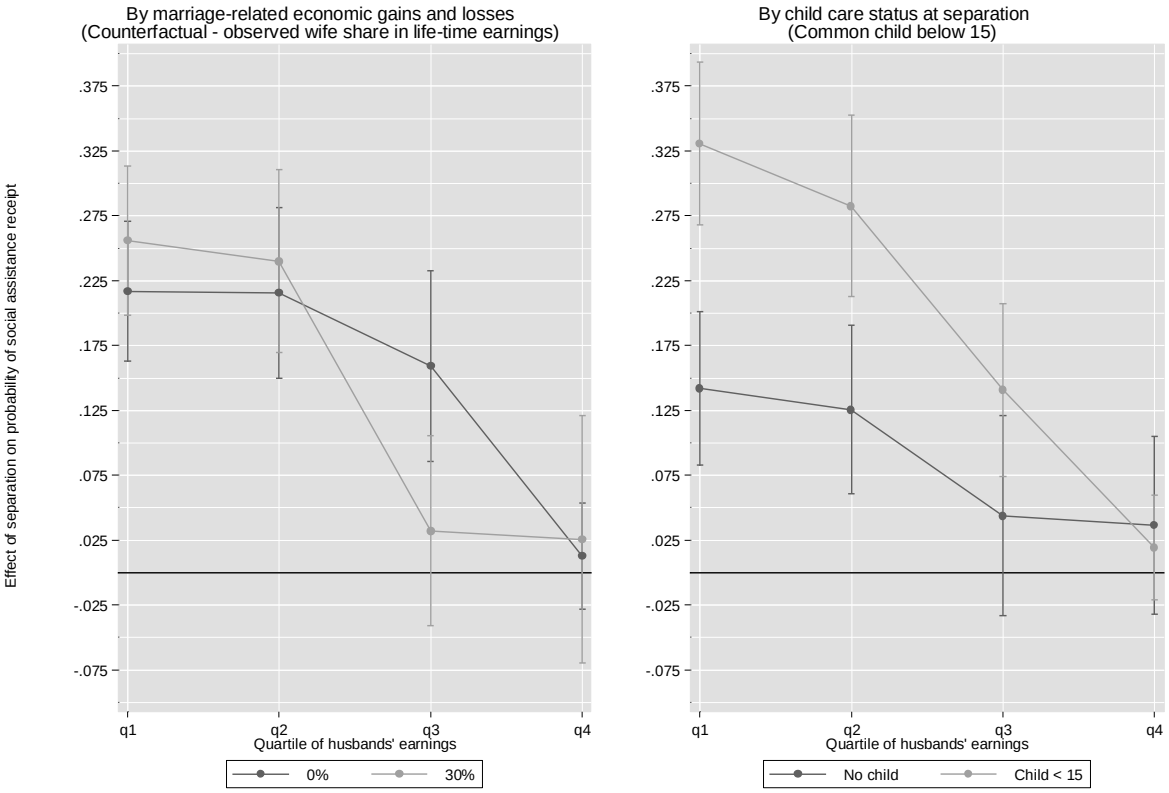


Figure 12. Average marginal effects of marital separations (and 95% confidence intervals) on women's social assistance receipt by husbands' earnings.

Notes: Women with earnings and approximated wealth in the first quartile of the annual gender-specific distribution. Predictions at observed distributions of age of woman, age of man, non-interacted alimony criteria (e.g., left-hand panel: presence of child under age 15) and observation year. N person-years = 8'326. Graph style adapted using grstyle (Jann 2017).

The right panel displays the effect of separation for women without versus women with children under age 15. For the former, the risk of taking-up SA after separation is significantly stronger when husbands' earnings belong to the lower half of the distribution. This difference displays the impact children have on women's ability to make ends meet due to an increase in living expenditures[39]. For these women, husbands' earnings are crucial. Whereas the estimate of the effect of separation is 33 percentage points at q1, it is nearly zero at q4. Although the reduction of the effect between q2 and

[39] Differences in earnings between women with and women without children are cancelled out.

q3 does not significantly differ between women with and women without children (p=.07), comparisons of effect levels reveal a substantive influence of husbands' earnings. While the difference between the two groups is high and statistically significant when husbands' earnings are set at q1 or q2, the effects do not differ anymore at q3 and q4. Again, note that, even for women without children under age 15, the effect of separation is substantially reduced at higher levels of husbands' earnings.

9.5.3. Potential biases and robustness checks

Two potential sources of bias could be driving our results. The first is common-cause confounding bias (Elwert and Winship 2014). A likely (unobserved) common cause of both husbands' earnings and women's SA receipt is women's social origin. Women from more privileged social backgrounds tend to marry husbands with greater earning potential (Mäenpää and Jalovaara 2015). Concurrently, it seems plausible that these women receive higher financial support from their own parents in case of marital separation. The lower risk of SA take-up after separation by women whose ex-husbands belong to the upper tiers of the earnings distribution could thus simply reflect the greater financial support these women receive from their parents and not the greater economic transfers they receive from their ex-husbands. Because the data do not include direct measures of social origin, we can only control for such heterogeneity by adjusting the distributions of women's educational attainment between women with low-earning and women with high-earning husbands. Results based on this method of approximate control do not suggest that common-cause confounding bias is substantially driving the differences in the effects of separation on SA take-up between these groups.

The second set of concerns is related to our measure of household separation. First, and most importantly, due to the restriction of our sample to household separations between 2009 and 2015, we lose a large share of our initial sample of divorced couples (cf. Figure 1). This loss could potentially be non-random. Second, as our descriptive analyses show, our measure of marital separation is prone to measurement error (see footnote 35). If part of our sample of women is coded as separated despite still living with their husbands (and being protected from SA take-up by the husband's earnings), the negative association between husbands' earnings and the effect of separation on women's post- SA take-up is overestimated (i.e. it is less negative). A third substantial concern is related to our choice of household separation instead of legal divorce as the event of study. After the residential separation, many couples might not yet have agreed on post-marriage household transfers. Hence, transfer arrangements may vary substantially within a few years after residential separation, when divorce-related decisions have been made. To check whether these three concerns distort our results, we repeated the analyses with the full sample of divorcees, but with observations restricted to the post-divorce period, when the separation process is terminated and when transfer payments have been settled. Comparisons of the *level* of SA receipt between quartiles of husbands' earnings (for women in

the lowest quartile) do not suggest substantive revisions of our main interpretations: if husbands' earnings are set to q1, women have a substantial risk of receiving SA after divorce, while the risk of SA receipt is not statistically significantly greater than zero at q4 for most estimates[40].

9.6. Discussion and conclusions

In cases where divorced women's incomes run short of minimum reasonable needs, Western welfare states rely on the principle of subsidiarity and the regulations governing alimony to define the right to claim social benefits. When such women are considered entitled to alimony, subsidiarity defends the idea that social benefits should *only* be allowed if their former husbands cannot provide financial support. Increasing social and institutional support for clean breaks and divorced women's mounting reliance on government transfers suggests that the principle of subsidiarity might no longer be respected. In this study, we tested this hypothesis by making use of uniquely tailored administrative data on Swiss women's SA take-up and couple earnings after marital separation. We examined whether a) marital separation increases women's SA take-up, b) whether this effect of marital separation persists independently of their ex-husbands' earnings and c) whether patterns a) and c) could be observed for women who are eligible for alimony.

Our main results show that there are no major violations of the principle of subsidiarity. Increases in SA take-up related to marital separation are largely restricted to women with little economic resources of their own. However, for this group of women it makes a vast difference whether their husbands belong to the lowest or the highest earnings strata: women whose husbands are bottom-25% earners show drastic increases in SA take-up, while women with top-25% earners are nearly fully shielded from such uptakes. More specifically, the protective effect of husbands' earnings follows a staggered pattern. While husbands' earnings within the lower half of the distribution have minor impact, additional husband earnings add the most protection for women with middle-earning husbands. Further, the results suggest some influence of alimony eligibility on SA take-ups. The protective marginal effect of husbands' earnings is enhanced for women who exit couples for whom marriage caused greater inequality in earnings histories between husbands and wives. This is arguably related to a greater tendency of post-marital economic transfers among such couples. Similarly, differences in the effect of separation on SA take-up between women with low- versus high-earning ex-husbands are larger for women with children from the dissolving marriage than for women exiting childless unions. Children increase women's risk of SA take-up by lifting the income threshold to which women run short of minimum reasonable needs and are eligible for SA. Private transfers are thus much more significant

[40] For details on and results of supplementary analyses see online supplement: [insert link for online supplement here].

in protecting them from SA take-up. Finally, it was also somewhat surprising to discover that women whose ex-spouses are top earners are nearly fully shielded from SA take-up even if they are *not entitled* to alimony according to our definitions. Alimony eligibility criteria are thus only marginally relevant for women's SA receipt who exit such couples. This is arguably due to low relative importance of the minimum transfer payments required to prevent such women from taking up SA (in relation to their ex-husbands' total incomes).

We wish to acknowledge the few limitations that inevitably affect the current study and indicate pathways for future research. First, even if we do not observe severe violations of subsidiarity, we cannot conclude that the institutional shifts in maintenance law towards clean breaks have *not* increased divorcees' recurrence to social benefits. To this end, future studies might employ cross-cohort longitudinal data that includes information on separation, private and public transfers, as well as divorcees' composition in terms of employment and couple earnings. Decomposition analyses could reveal whether increases in the probability that divorced women receive public transfers can be explained by genuine changes in private transfer policies, whether such changes were related to their reduced eligibility for alimony, or if there are other dimensions of change in divorcees' composition that would explain changes in SA take-up. For the time being we can only conclude that there is yet no current pervasive "problem" of clean breaks at public cost in Switzerland. Second, because our study lacked information on alimony orders, we cannot conclude whether the important levels of protection through husbands' earnings that we find for women who are not considered eligible for alimony are due to "overcompensation". Do institutions make divorced husbands protect their ex-wives from SA take-up even if they are ineligible for alimony? Our results do not exclude the possibility that the protective effect of husbands' earnings among these divorced couples comes from voluntary transfers. We are thus unable to reach conclusions on unjustified enforced economic interdependence between ex-spouses. Third, due to data non-availability in Swiss administrative registers, we were unable to link SA and earnings for unmarried couples, i.e. cohabiting partnerships with and without common children and never-cohabiting parents with common children. Given the current level of diffusion of such forms of relationship (Kessler 2017), we expect there to be ongoing differences between individuals who choose them and individuals who enter marriages. Furthermore, alimony regimes for married and unmarried couples have only recently started to converge (Chiappori et al. 2017). Hence, future research should describe how much protection from welfare dependency through ex-partners' economic resources differs between married and unmarried couples, how much of this difference can be related to different alimony regimes and how much is due to selection.

Despite such limitations, our study makes original contributions to the literature on the interaction between life course risks and the social stratification of poverty entry and related poverty dynamics

(e.g. Leisering and Leibfried 2001). Our results reveal on the one hand a persisting amount of post-separation economic interdependence among ex-spouses, but, on the other hand, that the protective effect of alimony is socially stratified. Women who are married to low-earning husbands only marginally benefit from it – many of them become unable to make ends meet after separation and must recur to social benefits. We show that it is women who were in couples in the lowest economic strata, as indicated by their own *and* their partners' economic resources, who face the largest risk of receiving SA due to marital separation. This diverges from conclusions drawn from earlier studies claiming that partnership dissolution is a critical life event that raises individuals' risk of poverty entry in a similar fashion across all social strata (Vandecasteele 2011; L. Leopold and Leopold 2016). Possible explanations for such differences are specificities of the Swiss context, our study's more poverty-relevant indicator of social class (i.e. wives' and husbands' earnings instead of occupation or educational attainment), or the strict measure of poverty (i.e. social assistance rather than the usual income-based at-risk-of-poverty measures) we used.

Against this background, our results do not suggest that the main or best road towards reducing divorced women's SA dependency is an increase in private transfers. The women facing the highest risk are also the women whose husbands have the fewest resources. Hence, there is not "much more to get" through alimony, and "clean breaks" cannot be considered a main cause of divorce-related welfare expenditures. Rather, given the significant gender differences in the risk of taking-up social assistance after divorce, the results speak to policies aimed at reducing the earnings that women forgo when they enter marriage and parenthood. This can be achieved by improving the availability and accessibility of high-quality childcare and by providing opportunities for a more equal share of parental responsibilities through adequate parental and paternal leave policies. For such measures to be implemented, a shift towards a more egalitarian conception of marriage and the role of men and women within it needs to direct social policies on family affairs, which is currently still strongly founded on the main-breadwinner main-career template. While such a shift is already on its way at the level of the Swiss population and its attitudes (Rossier, Sauvin, and Bernardi 2018), the institutional update has yet to occur.

9.7. Appendix: Clean Breaks at Public Cost? His Earnings and the Effect of Marital Separation on Her Social Assistance Take-up

9.7.1. Adjusting for women's educational attainment

To reduce unobserved differences between women with high earning husbands (q4) and women with low earning husbands (q1) which are relevant for SA take-up (e.g. due to financial support from parents), we calculated the effect of separation on SA take-up after balancing their distributions of educational attainment.

To achieve balance we used entropy balancing (Hainmueller, 2012) to calculate weights that adjust the distribution of highest educational degrees of women in q4 to the distribution of women in q1. Differences in educational distributions are particularly pronounced with respect to highest degrees ("tertiary education", 22.9% among women in q4; 9.1% among women in q1) and lowest degrees ("less than vocational education"; 26.7% among women in q4, 39.8% among women in q1). All differences in the distribution of educational degrees are evened out when calculating distributions under usage of entropy balancing weights.

To estimate the effects of separation, we calculate two kinds of OLS models with standard errors clustered in women (random effects models, as used for the main analysis, do not allow for the use of weights). A first one using survey weights only and a second one using entropy balancing generated weights. Both models are restricted to women with few economic own resources (cf. section "Modeling strategy").

The effect is somewhat higher when women's educational distribution at q4 is set to the one at q1 (cf. Figure 1). Yet, differences in effect estimates between women in q1 and women in q4 are qualitatively similar between the two kinds of models: the effects are around 24% for women in q1 and statistically insignificant for women in q4.

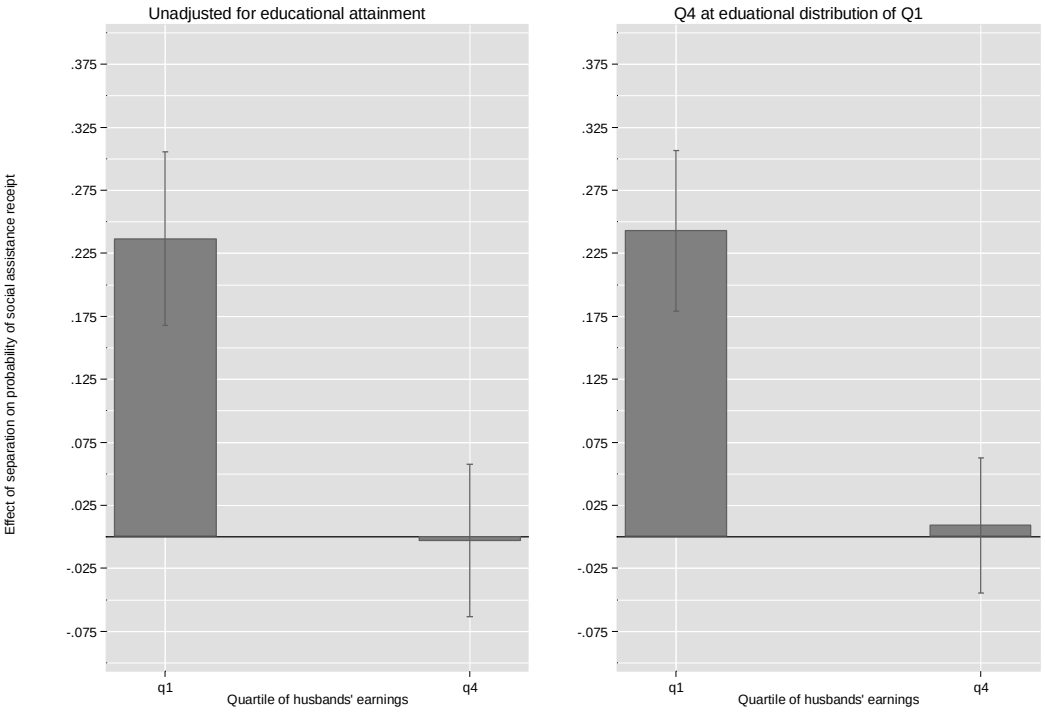


Figure 13. Comparison of effect of separation on social assistance take-up women whose husbands are top-25%-earners vs. women whose husbands are bottom earners, by adjustment on educational attainment

*Notes: Women with earnings and approximated wealth in the bottom quartile. Based on OLS model with standard errors clustered in women. Model specification: SA receipt = separation dummy * (husbands' earnings quartile adherence, categorical) * (women's earnings, continuous) + cumulated earnings inequality + presence of child below 15 at separation + marital duration + age of women + age of husband. Model underlying left-hand picture with survey weights only, model on right-hand side with weights that adjust educational distribution of women with top earning husbands to educational distribution of women with bottom earners. N person-years = 8'326.*

9.7.2. Social assistance levels after legal divorce

In the second supplementary analysis we calculated predicted probabilities that women with few economic own resources receive social assistance in the period *after legal divorce* (instead of the predicting the change related to marital separation). This allows us to include couples for whom we did not identify a separation date between 2009 and 2014, avoid errors stemming from the measurement of marital separation and account for the potential role of formal juridical agreements for actual transfer payments.

The general result of absence of major violations of the principle of subsidiarity as found when estimating changes in risk take-up caused by marital separation holds for estimates of post-divorce levels of SA receipt. Except for women without children, women whose husbands are top-25%-earners do not show risks of SA receipt that are statistically significantly greater than zero (cf. Table 1). A notable difference to the main analysis is that the pattern of reductions in the risk of SA with husbands' earnings is less distinct for women exiting couples with high (30%) versus women exiting couples with low (0%) levels of "marriage-related economic gains and losses".

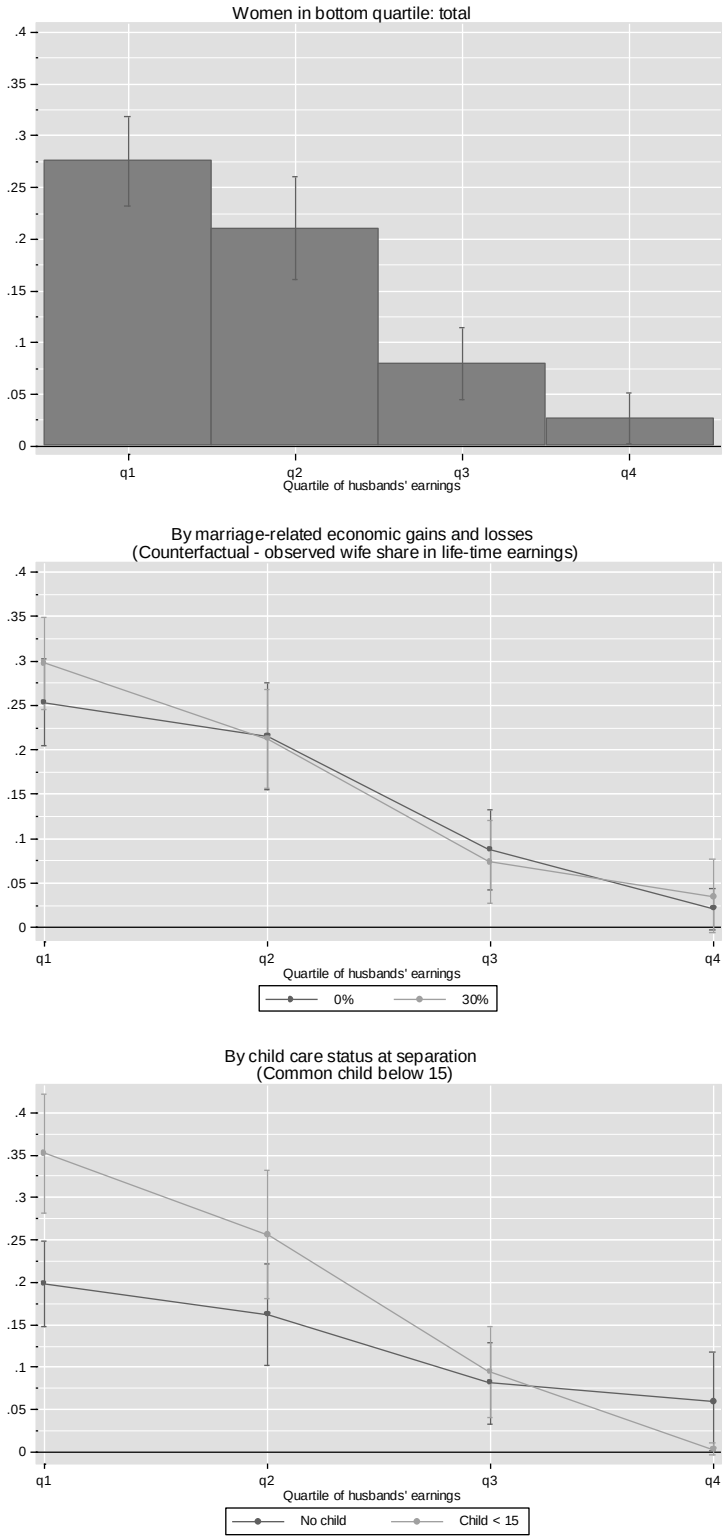


Figure 14. Predicted levels of women's social assistance receipt after divorce

*Notes: Women with earnings and approximated wealth in the bottom quartile. Based on logistic regression models with standard errors clustered in women. Specification model "total": SA receipt = (husbands' earnings quartile adherence, categorical) * (women's earnings,*

*continuous) + cumulated earnings inequality + presence of child below 15 at separation + marital duration + age of women + age of husband. Specification model "marriage-related economic gains and losses": SA receipt = (husbands' earnings quartile adherence, categorical) * cumulated earnings inequality *(women's earnings, continuous) + presence of child below 15 at separation + marital duration + age of women + age of husband. Specification model "child care status at separation": SA receipt = (husbands' earnings quartile adherence, categorical) * (presence of child below 15 at separation) *(women's earnings, continuous) + cumulated earnings inequality + marital duration + age of women + age of husband. N person-years = 4'579.*

10. Summary and implications

Western societies must adapt to a high incidence of partnership separation (Cherlin 2016, 2017; Wagner, Schmid, and Weiß 2015). Ending a partnership endangers the well-being of those who separate (Amato 2010) and their children (Härkönen, Bernardi, and Boertien 2017). Yet, a core tenet of research into the consequences of critical life events is that the extent to which individuals suffer from the experience of a separation depends on the resources they have access to (Amato 2000). Societies can reduce the negative consequences of partnership instability by guaranteeing that individuals have the required amounts and types of resources. Focusing on the case of Switzerland, this thesis embraced four empirical studies into the availability of resources to individuals that dissolve their partnerships. In the following, I summarize the main goal and results of each study and derive their implications for theory and, insofar as they allow for suggestions, for policymaking and future research.

The *first study* has examined the impact of educational expansion on increasing rates of breakup in both first marriages and non-marital cohabitations (NMC) in Switzerland. It drew on theoretical accounts that stress the relevance of the social context for the extent to which individuals with differing levels of educational attainment differ in their risk of partnership separation. I hypothesized that more education was *not* linked to higher break-up rates throughout the period of educational expansion. This implies that individuals' greater educational attainment *cannot* explain why partnership instability has increased.

In line with expectations, the main result of the study is that the expansion of educational attainment is an insufficient explanation of the increase in partnership instability (Wagner et al. 2015). Because the educational gradient in separation changed from being positive for women (and, to a lesser extent, for men) to being statistically non-significant at the same time as educational expansion took place, the latter can only serve as a minor explanation of the exceptional rise in breakup rates in Switzerland.

Thereby, the study connects to a still growing strand of sociological research that stresses the historical limits of Gary Becker's (1977) economic model of marital instability (Killewald 2016; Sayer and Bianchi 2000; Schwartz and Han 2014). At the beginning of the second half of the 20th century in Switzerland, the model was quite successful in predicting marital dissolution. Couples in which women held a high educational degree - and arguably were particularly reluctant to specializing in home production - had a higher chance of marital dissolution than couples in which the wife had attained less education. Given the absence of educational differences in partnership instability today, the model now has difficulties at predicting divorce (Bellani, Andersen, and Pessin 2017; Schwartz and Han 2014).

The results can be better reconciled with the literature that links educational differences in separation risks to opportunity structures in a given social context (de Graaf and Kalmijn 2006; Härkönen and Dronkers 2006; Matysiak, Styrc, and Vignoli 2014; Villiger 2017). On one hand, separation could have become more frequent among the least educated because of the greater economic security provided by the labor market and the welfare state (Halla, Lackner, and Scharler 2016). Due to greater incomes and public benefits, lower educated men and women could have increased their breakup rates more than others because they perceive single life more economically feasible. On the other hand, the reversal in the educational gradient also corresponds with predictions from sociological models on the diffusion of innovation (Rogers 2003). These state that new social behaviors are started among those social groups with most resources (e.g. highly educated individuals) and are successively adapted by less endowed social groups (e.g. less educated individuals) (Goode 1962; Rogers 2003). Other sociological explanations stress that the diffusion of new behaviors is interrelated with the reduction of social and institutional hurdles associated with them (Kalmijn 2010; Kneip, Bauer, and Reinhold 2014; Soons and Kalmijn 2009).

With the data at hand I was unable to discern whether economic (increases in wages and social benefits) or sociological (diffusion of behavior, change in norms) changes were more relevant for the increase in partnership breakup. Due to the persistence of economic differences between educational groups (Bukodi et al. 2016; Liechti 2014), it seems unlikely that convergence in economic security between educational groups can fully explain why the least educated now separate as much as the most educated. Hence, sociological processes must have caused at least part of the disproportionate rise in partnership break-up among the least educated. This has increased the population-level consequences of partnership instability. When those social groups with least economic resources to prevent poverty entry after separation adopt the high separation rates of social groups who are more economically safeguarded, then separation becomes a more important predictor of poverty entry.

With respect to future research, the results highlight the role of NMC for trends in couple instability (Cherlin 2017). NMC end in separation much more frequently than marriages and the share of NMC among all first partnerships has increased steadily. Hence, the increase in partnership instability went hand-in-hand with couples' increased tendency to remain unmarried. Concerning the study of trends in partnership instability, these results thus stress the continued need to account for both, marriages and NMC. The use of retrospective survey data as used here has its caveats (cf. Morselli, Goff, and Gauthier 2018). However, due to unavailability of alternative historical data sources, it is still the only means to study long-term trends in informal unions in many contexts. The 2018 edition of the "Families and Generations Survey" (the Swiss equivalent to the international "Generations and Gender Programme"), which is being collected at the time of writing and includes retrospective partnership

histories, can thus be a valid source of information for future research into the subject. Yet, I would like to encourage research which focuses on more recent developments – e.g. the question of whether recent drops in divorce rates (BFS (Federal Statistical Office) 2018) can be interpreted as a genuine sign of re-increases in partnership stability – to use data sources with richer and more reliant time-varying information such as the prospective Swiss Household Panel or linked administrative registers.

The *second study* has described gender differences in the consequences of divorce in two divorce cohorts. It built on the expectation that differences in the type of resources mothers and fathers accumulate during marriage lead them to suffer differently from divorce. However, resource differences between married mothers and fathers are declining from a historical perspective and institutions governing the outcomes of divorce have changed significantly. On this background, the study took up the hypothesis of prior research which stated that the consequences of divorce should have become more similar for mothers and fathers over time. Due to the peculiarities of the Swiss context, my hypotheses on gender differences in the consequences of divorce for parents and historical patterns partly diverged from the literature. I hypothesized that a) mothers suffered greater declines in economic well-being than fathers, b) mothers and fathers experienced similar declines in emotional well-being due to divorce c) gender differences in the consequences of divorce for parents remained stable across cohorts.

In line with my hypotheses, I found persistent gender inequality in the impact of divorce on parents' equivalized household incomes. In both cohorts, recently divorced mothers have lower incomes than continuously married mothers (-19% in the 1990s; -30% 2013), which could not be observed for fathers. Furthermore, divorced mothers and fathers reported similarly lower levels of emotional well-being than their continuously married counterparts. Likewise, such absence of gender differences in the emotional disadvantage of divorced parents was also found among both cohorts.

Theoretically, the results revealed the implication of inequality in resources and needs between divorced mothers' and fathers' economic situation (Leopold and Kalmijn 2016). Because in most cases divorced mothers live with children and that mothers have substantially lower incomes from employment than fathers, the economic situation of parents largely diverges after divorce. Spousal support payments substantially reduce such inequality, but cannot fully eliminate it.

Finding that mothers and fathers suffer similar declines in emotional well-being due to divorce has two theoretical implications. On one hand, it shows that while divorced fathers have an objective advantage over divorced mothers in economic realms, they are at least as disadvantaged in the emotional domain. Although I did not directly test such mechanism, I expect that the deterioration of father-child relationships after divorce (Grätz 2017) could explain their emotional strain (Yuan 2016).

On the other hand, finding that mothers have no advantage over fathers in emotional realms could imply that having custody over children not necessarily leads to an emotional advantage. Studies have linked child custody to greater time pressure (van der Heijden, Poortman, and van der Lippe 2016). Hence, as has been underlined by the results of the study, the stressful condition of combining work and full custody could explain why divorced mothers are relatively bad off emotionally despite better relationships to their children (Struffolino, Bernardi, and Voorpostel 2016).

From a policy perspective, it can be concluded that the main goal of the divorce law revision of reducing gender differences in the consequences of divorce was not reached. Despite increases in divorced mothers' labor market participation of around 20 percentage points within less than 20 years, mothers still experience substantially greater declines in economic well-being with divorce than fathers. Such pattern can either be linked to a) to the rise in lowly paid part-time work among mothers or b) to the decline in spousal support payments that coincided with the revision of divorce law. Fathers' subjective accounts point to substantial financial strain after divorce. Therefore, rather than policies seeking to reinforce support payments which further increase economic pressure on fathers, this study encourages efforts that are targeted at increasing married mothers' earnings. In addition, reducing inequality in physical child custody could not only bring economic and emotional relief to divorced mothers, but also emotional relief to divorced fathers.

Due to a lack of longitudinal Swiss data for the study of historical changes in the consequences of divorce, this study had to draw on a synthetic dataset based on different cross-sectional surveys. This has raised methodological concerns about the quality of well-being indicators and unobserved selection. The main suggestion for future research thus is to rely on long-term panel data that comprehensively measures individuals' well-being in multiple domains to study change in gender inequality in the consequences of divorce for parents (Leopold and Kalmijn 2016; cf. Tach and Eads 2015; Tamborini, Couch, and Reznik 2015). Yet, at least for the recent cohort, robustness checks suggested that cross-sectional estimates based on the synthetic dataset did not lead to conclusions that qualitatively diverge from analyses with longitudinal data from the Swiss Household Panel. Hence, the study can be seen as an example of how surveys with retrospective partnership information can provide insights into the consequences of family dynamics in contexts for which no panel data exist.

The *third study* explains one of the causes of the persistence of gender differences in the economic consequences of divorce: the decline in adult alimony. Just as in most Western countries, adult alimony is becoming a marginalized phenomenon in Switzerland. On one hand, the main function of alimony is to reduce economic inequality between spouses. Hence, an intuitive explanation for the decline in alimony is that when economic resources and needs between divorcing spouses became more alike,

alimony has lost its core function. On the other hand, descriptions of maintenance law consistently find that the scope for norms to influence adult alimony negotiations is vast (Ellman and Braver 2012; Oldham 2017; Starnes 2011). Because marital norms have shifted substantially during the divorce law revision in Switzerland, I hypothesized that an objective reduction in economic resources and needs between spouses in this period are insufficient to fully account for the decline in alimony awards.

The results show that adult alimony has become significantly less frequent in the study context: while for divorces enacted in 1990, wives were awarded alimony in more than every second divorce, this share has sunken to one divorce in three in 2008. Wives in later divorces earned higher incomes. The introduction of shared legal custody in 2000 has coincided with a steep reduction of the share of divorced women who were attributed sole legal custody over children. Also, spouses' incomes and child custody arrangements are strong predictors of adult alimony in both periods. Yet, together, changes in wives' incomes and child custody allocations account for only 13% of the observed decline in the probability of alimony awards. Another potential explanation for the decline in alimony was the introduction of pension splits, which lowered old age pension wealth inequality between divorcing spouses. Rules on alimony determination explicitly require that the outcome of pension splits is considered when determining alimony, with less need for alimony when pension assets are split. The data at hand did not allow for a direct assessment of the role of lower pension inequality for the decline in alimony. Yet, the strong declines in alimony found for divorces without legal pension splits suggest that such trend is not capable of explaining the decline in alimony either.

From a theoretical viewpoint, the results fit in with the predictions of the deinstitutionalization of marriage hypothesis (Cherlin 2004). The divorce law revision weakened the institutional understanding of marriage. This implied a lowering of the norm that husbands have formal responsibility for their wives' economic security, which has undermined argumentation in favor of alimony. Future research should continue to study the logics that guide alimony determination today. Yet, irrespective of which concept of marriage dominates alimony negotiation, it has gotten clear that the formal marital contract *per se* is a less weighty argument in favor of alimony. This supports calls for an extension of the alimony system to informal unions (Jeandidier 2017).

Furthermore, such trend had consequences for divorced women's economic well-being. For those women who benefited from pension splits, old age pension incomes have improved over time. Yet, the reduction in alimony awards has reduced the average household incomes of *all* divorced women *until* they reach retirement age. The decline in alimony was less steep among women with low incomes. Nevertheless, declines in alimony among them could still be an explanation of women's high levels of

public benefit take-up after divorce. Has there been a shift in economic responsibility for divorced women from ex-husbands to the state?

The *fourth study* of the thesis takes up this assumption. Due to low social and institutional support for alimony and rising levels of public benefit receipt by divorced women (Bröckel and Andreß 2015), we hypothesized that the constitutional principle of subsidiarity is violated. Violations of the principle of subsidiarity describe situations in which individuals recur to government transfers after marital separation despite having an ex-partner who could and should provide financial support. Empirically, we identified violations of subsidiarity by testing whether the effect of marital separation on women's social assistance (SA) take-up persists across the distribution of husbands' earnings (i.e. whether there even was an effect for women with high earnings husbands) and whether this pattern could be found for women whom we consider eligible to alimony (e.g. because they had children with their ex-husband).

The main result of this study was that there are no major violations of the principle of subsidiarity. SA take-up due to marital separation is mostly attributable to take-up rates by women who belong to the lowest quartile of women's income distribution. However, a closer look at this group reveals that for these women it is crucial how much economic resources their ex-partners have. On one hand, women whose ex-husbands are top 25% earners are nearly completely shielded from separation-related take-up rates. On the other hand, for women whose husbands' incomes are situated in the lower half of the male income distribution, marital separation leads to an increase of more than 20 percentage points in the probability of SA. The reduction of the effect of marital separation on wives' SA take-up by ex-husbands' earnings is stronger among couples where alimony criteria indicate eligibility to alimony (e.g. because they have children). Still, we find that even among women where indicated alimony eligibility is low (e.g. because the couple was childless), marital separation does not lead to heightened levels of SA take-up if their ex-husbands have top 25% incomes.

The study has implications for research into the social stratification of poverty entry after critical life events (Leisering and Leibfried 2001). Given the way we operationalize poverty and individuals adherence to socio-economic strata, it is of no surprise that we find that marital separation only has an effect on women who belong to the lowest strata. SA is a means-tested benefit. This implies that if individuals earn incomes above certain thresholds, they are ineligible to such benefits.

The results confirm the view that life chances by women from different social strata diverge after divorce. Thereby, they question conclusions from earlier studies which suggested that divorce leads to similar increases in poverty rates for women in all social strata (Leopold and Leopold 2016; Vandecasteele 2011). Such conclusion is essentially linked with the omission of differences in wealth

and non-pecuniary transfers between women from different social strata. Divorce may reduce equivalized household income similarly across social strata – or even more so among well-educated women who separate from top income husbands. Yet, in comparison to women from higher social strata, for women exiting low income household a given reduction in income due to separation is more likely to imply that they become poor. Taking-up public benefits prevents the most severe implications for their own and their children's well-being. However, due to the requirements linked to means-tested benefits, SA receipt can also be seen as a source of stress.

Another implication of the study is that policies which seek to reduce SA take-up after marital separation cannot rely on reinforcing transfer payments. Those women with the highest risks of taking-up SA are also those women whose husbands have the lowest incomes. Hence, there is "just not much more to get". Rather, a more feasible strategy are efforts to increase women's earnings. In the year of marital separation, women in the lowest earnings quartile earn less than an annual CHF 22'000. Hence, their low earnings are likely to be the result of part-time employment or temporary non-employment. Increasing women's time capacities to acquire own economic resources already during marriage reduces the cost of divorce that accrues to the public in the form of separation-induced SA take-up. Thus, already from a mere fiscal perspective, it might thus pay-off to create a better environment for work-family reconciliation. This especially holds for low-income couple households.

Do actors underestimate the risks of a lack of resources after partnership separation? The results of the four studies suggest that the answer to such question varies along divorcees' life course. The institutions that regulate economic outcomes just after divorce – i.e. the system of spousal support - are relatively *well adjusted* to the risks of partnership separation. Alimony has become less frequent. Hence, in line with more individualistic and empowered views of women (Berghahn 2004), expectations on women's economic self-sufficiency have increased. The saying *"Einmal Chefarzt-Frau, immer Chefarzt-Frau"* has undoubtedly lost its validity. However, the decrease in alimony was restricted among those cases where couple inequality is high and where women are at a high potential risk of poverty after separation. In such cases, institutions still guarantee that women must not recur to government transfers if their ex-partners can provide financial assistance. Hence, the risks of separation are correctly perceived and resources accordingly allocated in divorce procedures. Reinforcing alimony from men to their ex-wives thus does not seem to be the right measure. It would increase economic hardship for divorced men, which, subjectively, is already at the high level of the one reported by divorced mothers (Crowley 2017).

The risks associated with a lack of resources after partnership separation seem less well accounted for at earlier instances in divorcees' life courses. First, when individuals decide on whether or not to end

a partnership, the availability of resources does not matter. In the Swiss contexts, partnership separation is experienced as often by individuals with low educational attainment as by individuals with more educational attainment. Such result is arguably related to the individualistic normative climate in Switzerland, which allows all citizens to choose among a great variety of lifestyles. At current distributions of resources between educational strata, this implies that there are individuals whose resources do not allow them to appropriately cope with the life changes following separation. The failure of marriage promotion campaigns in the US (Cohen 2018) show that social stigma associated with divorce and separation cannot be restored to prevent individuals from separating. Yet, there are two potential ways how policy can address lacking resources to deal with life transitions: either by further increasing the share of individuals that attain more education and resources or by increasing the resources that individuals with low educational attainment have access to (Bukodi et al. 2016).

Second, given the highly unequal levels of economic and social resources between women and men who separate, it seems that the risks inherent to partnership separation are not accounted for when couples negotiate on the division of tasks. When moving in together and deciding on who does care and housework and who is responsible for the household income after marriage and parenthood, couples do not take into consideration that they only have a 50% chance of still cohabiting together 20 years later. Women thus do not fully account for the potential lack of economic resources and men do not fully account for the potential lack of social resources in case of loss of the partner. Such behavior may be rational given the current character of family policy in Switzerland (Matysiak and Węziak-Białowolska 2016). Deviating from the male breadwinner or the one-and-a-half-earner model is still associated with considerable private cost (e.g. for external child care). It thus seems that the Swiss context does not do justice to a longer-term perspective that takes the high chance of separation and its resource requirements into account. From such perspective emerges that organizing couple life in a specialized manner is a misleading behavioral scheme (Widmer and Spini 2017).

If the hypothesis of the two-fold gender revolution and its demographic implications is valid (Esping-Andersen et al. 2013; Goldscheider, Bernhardt, and Lappegård 2015), improving the conditions of work-family reconciliation for women and men could not only make them more prepared to deal with the consequences of separation (Leopold and Kalmijn 2016). It could also bring relieve to the social consequences of partnership instability in a preventive manner: by re-increasing conjugal stability. Future research should examine this promise.

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